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"FRUIT WORLD OF AUSTRALASIA."

Representing the deciduous, citrus and dried fruits industry of Australasia.

Published the First of each Month.

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Articles and Photographs.—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning, drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's M.S.S.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

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Renewal Subscriptions are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

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"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" offices (where copies and full particulars are obtainable) are as follows:—

Victoria (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

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Melbourne Fruit Trade.

Removal of Closing Restrictions

Brings Improvements.

"Fruit World's" Policy Justified.

Citrus Growers Appreciative.

The presence of citrus fruits on the Melbourne markets, and the welcome sight of same in the city shops, brings back memories of the big fight which took place about this time last year.

For some years Melbourne shopkeepers were forced, unwillingly, to cease selling fruit at 7 p.m. four nights per week, for five months of the year (May to September, inclusive).

Then came a worse regulation, making it a punishable offence for any cafe which sold fruit during the day to even keep its doors open after 7 p.m. for the sale of refreshments, and shopkeepers were faced with the alternative of either closing their doors at 7 p.m., or ceasing to sell fruit, even in the day time.

Many chose the latter. Those who broke this foolish regulation were fined—not for selling fruit during the evening, but for selling it during the day. It was an offence to even have a window display of fruit.

The "Fruit World" took up the cudgels, and, after much agitation, and the assistance of earnest members of Parliament, particularly Mr. W. H. Everard, M.L.A., an Act of Parliament was passed, freeing the Melbourne city area from both restrictions, and allowing shopkeepers and barrowmen to sell fruit during the day and evening.

Resolutions have been adopted at various conferences, thanking the "Fruit World" for its leadership in this matter.

Growers of citrus fruits, apples, pears, grapes, passion fruit, pineapples, bananas and custard apples, in the several States, have benefited by the increase of trade which has followed the removal of the harassing restrictions.

Rough Handling of Fruit.

Victorian Government is Drafting Legislation on Tasmanian Lines.

The Victorian State Cabinet has acceded to a request recently made to it by a conference of fruitgrowers, that legislation be introduced, making it an offence, as in Tasmania, to handle in a rough manner fruit intended for export. The Tasmanian regulations, which will be incorporated in the Victorian legislation, are as follows:—

No case or cases of apples or pears for export, not stacked on end, shall be stood or walked upon by any person, except upon a plank, of not less than one inch in thickness and six inches in width, first placed on such case or cases for that purpose.

No person shall handle, stack, load or unload any apples or pears for export whereby such apples or pears are subjected to shock sufficient, in the opinion of an inspector, to bruise or injure such apples or pears, whether such fruit be injured or not.

Any person committing a breach of the regulation shall be liable to a fine of not more than £10.

Canned Fruit Pool, 1922-23

Growers request for increased prices refused.

A communication has been received per favor of Mr. W. C. Hill, M.H.R. from the Minister for Trade and Customs, Mr. Chapman, dated June 12, as follows:—"With reference to the deputation of Fruitgrowers introduced by you to the Treasurer and myself on the 12th April last regarding the payment of last years pool prices to growers, I desire to state that very careful consideration has been given to the request, but it is regretted that the amount already guaranteed to fruitgrowers cannot be increased.

Arrangements are, however, being made to pay the final 10 per cent. to the growers at an early date."

It can be readily demonstrated that the decreased prices for fruit are below the cost of production.

On the other hand we find the sugar producers obtaining Government assistance to secure "the cost of production and a reasonable margin of profit."

The Standard Fruit Case Act to be enforced in South Australia.

Local and Interstate fruitgrowers and merchants are asked to note that after October 1 next all fruit cases must conform to the standard fixed by the Sale of Fruit Act, which, so far, has not been rigidly enforced.

The Minister for Agriculture (Hon. G. F. Jenkins), in response to a deputation from the Wholesale Fruit Merchants' Association, stated that except in respect to fruit sold in baskets, buckets, casks, tubs, bundles or trays, the standard bushel or half-bushel case must be used. The brand of the maker and guaranteed capacity must be on the end of the case. Where growers had secondhand cases, only the standard sizes would be allowed, and if the original brand was effaced, the grower could affix his own guarantee.

The merchants, who were represented by Messrs. H. J. Bishop, Johnson and Austin, demonstrated that many secondhand cases now used were undersized. The Act allowed for sufficient variation, viz., an excess of 3½ per cent., or a deficiency of 2½ per cent. on the cubic capacity.

Interstate consignors must be careful in sending cases of fruit to South Australia to see that cases are not unduly over or under size.

It will be remembered that a few years ago, in the inland of Tasmania, fruit being sent to South Australia in cases containing more than the required bushel, same were rejected by the inspection authorities.

PREFERENTIAL TRADE.

There is an apparently growing appreciation in the United Kingdom in favor of the claims of the Dominions for a preferential tariff. The difficulties in the way of securing same are not minimised by the most ardent advocates of "Dominion trade preference.

The "Morning Post" (England) says:—"The Dominions are likely to remain our best customers. They consume far more of British goods per head than foreign countries; their exchange is particularly useful, for, generally speaking, it is in food and raw materials. Moreover, the Dominions give our manufacturers a substantial preference over foreign goods. It has been proved by many examples that this preference frequently decides contracts in our favor. Further, the Dominions, in the war, showed themselves to support Great Britain. For all these reasons, it is to the real interest of this country to develop trade relations with the rest of the Empire."

DRIED FRUITS.

Trade with Canada.

The probability of the completion this season of the mutual arrangements for preferential tariffs between Australia and Canada has been announced by the Prime Minister, Mr. Bruce. As regards the export of Australian Dried Fruits to Canada, this perferential tariff should be of immense benefit. For the fiscal year ended March 1923, Canada purchased from the United States 1,641,135 lbs. of currants out of a total of 5,139,976 lbs. imported. As regards Raisins, the importations for the year under review were 32,044,480 lbs., of which United States supplied 30,646,915 lbs.

This will indicate the extent of the possible market in Canada, which awaits development. The importation of dried fruits into Canada (Apples, Apricots, Currants, Prunes, Peaches, Dates, and Figs) for the year ending March 31. were 66,659,127 lbs., valued at approximately £1,490,000

The following paragraph appeared in the "Californian Fruit News" of May 19th.:—

"The Californian Government has just announced an increase from two-thirds of a cent to 3 cents (1½) a pound on Raisins and Currants, and includes in the same announcement that Raisins and Currants from England and British Possessons are under a preferential arrangement (duty free). This is an important item to California. We are exporting between 13,000 and 15,000 tons of Raisins to Canada a year. The tremendous increase in import duty is a great handicap, so that we can no longer expect to sell many Raisins into Canada unless some change be effected. *This puts Australia in a very advantageous position in doing business with Canada. This new duty is highly important to us, as it is about prohibitive for Californian Raisins.*"

Personal

Mr. R. Crowe, exports superintendent of the Victorian Department of Agriculture, has been appointed to visit England next year, in charge of the fruit exhibits at the British Empire Exhibition.

They Say

That the report by Mr. Vagg, who was sent to California by the Griffith (N.S.W.) Producers' Co-operative Co., as published in this issue, is of great interest and value. Congratulations to the progressive association and its efficient and genial delegate.

That a resolution recommending liquidation has been adopted by the shareholders of the Victorian Orchardists' Co-operative Association Ltd.

That the remarks of Mr. Justice Powers in making an award against Australian fruitgrowers indicate an "arm chair," and not a practical, view of the industry.

That the early oranges sold this season were unripe, causing resentment among purchasers.

That the successful campaign of the "Fruit World" in removing the restrictions on fruit selling in Melbourne has improved the trade and benefited growers.

The fruitgrowers would welcome an assurance from the Prime Minister promising them, as he promised the sugar producers, "stability for their industry and a reasonable measure of profit."

That a recent estimate shows that by 1930 South Africa will have a production of over 6,000,000 bushels of citrus fruits, mainly Oranges.

VICTORIA.

Dried Prunes.—The dried Prunes processed by Mr. Martin of Yackandandah, (Vic.) in his "Latham" dehydrator are of such excellent quality, that Mr. Martin finds it impossible to fulfil all the orders which he has received.

DEHYDRATION IN TASMANIA.

Captain J. A. Newman, Managing Director of Tasmanian Dehydration Pty. Ltd., Bridgewater (Tas) visited Melbourne during June. This company had a very successful run with Apricots, a superior article being produced. The "Latham" plant which is installed is doing excellent work; it will probably be doubled in the near future. "Dehydration" states Captain Newman "has come to stay and the sooner Australia wakes up to it the better."

Western Australia

SWAN FRUITGROWERS' CONFERENCE.

At a recent meeting of fruitgrowers of the Swan district, over which the Rev. A. Burton presided, resolutions were adopted for submission to a general conference of fruitgrowers from all parts of Western Australia.

At the instance of Mr. J. Thomas, a resolution was adopted, urging the Government to establish a central fruit and vegetable market in Perth having railway facilities and cold storage.

Mr. R. S. Sampson said the Premier (Sir James Mitchell) had definitely promised financial support when a practical scheme was forthcoming. The peopling of the country could not be effectively done until opportunities were provided for marketing produce.

Further resolutions were carried, requesting a special area in the markets for sale of grapes, and that all grapes should be sold by private treaty, the prices to be prearranged.

AUSTRALIAN PRODUCTS.

Do not listen to the speeches
About California's peaches;
We've a better line to show you here
and now.
Up to sample we supply 'em;
Come along, sir; taste and try 'em;
Nothing like 'em ever grown, you
must allow.

Lovely skin, and ripe and juicy;
I'll engage if ever you see
One like this you won't resist. No
more could I.
Perfect sample, warm and sunny,
Fresh as dew, and sweet as honey,
And we've plenty more at home, so
won't you buy?

Never mind the Yankee apples;
They are simply off the map. Ills
Vanish swiftly when you taste our
fruit in store.
Rosy cheeks, so don't desert 'em,
If you pinch 'em, you won't hurt 'em;
They've no "brown heart"—sound
and honest to the core.

Try our cherries; they will thrill you
When they touch your lips. Why will
you
Go to others, when Australian sorts
are here?
Ours are ripest, most alluring,
Surest for heart trouble curing;
Taste and see, sir. We've the finest,
never fear.

We extol our products fruity,
For the sunshine warms their beauty,
And the raindrops dew their freshness as with pearls.
Take a tip from one who knows, sir,
We've the best of fruit that grows, sir.
Oh, there's nothing like a bunch of—
Melbourne girls.
—"The Evening Sun," Melbourne.

The Pruning of Grape Vines.

Practical Seasonable Advice.

By G. Quinn, S. Australian Government Horticultural Instructor.

THE SUBJECT OF PRUNING is of never failing interest to the fruit producer. In this article attention is confined to the pruning of vines, of which there has been a big increase in planting during the past two or three years.

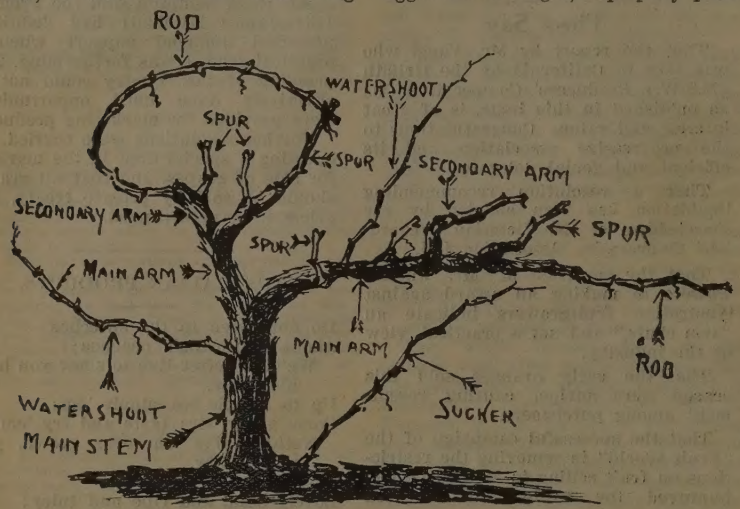


Figure 1. Diagram of the parts of a Grape Vine.

PRUNING OF GRAPE VINES.

Illustration No. 1. reveals the nomenclature which is applied to various parts of a fully-grown Grape vine, same being republished from Mr. G. Quinn's book on Fruit Tree and Grape Vine Pruning.

From the soil arises the main trunk or stem from which are developed the main arm or arms, and subsequently the secondary arms. The stem and main arm alone are claimed to be the permanent parts as the secondary arm invariably extends through the annual increments gained from each winter's pruning, until its renewal becomes a necessity (see Figure 2). From the secondary arms arises those annual shoots or canes which are most valuable when it comes to producing the buds for the coming summer. These are called the fruiting wood.

What is known as Water Shoots come direct out of the stem or main arm, or sometimes some older portions of the secondary arms. Water shoots are not relied on as fruit-bearers. They possess two points of value.

(1) If a gap exists in the frame-work, an arm to fill it may be developed from the water shoot; or, in the case of secondary arms or spurs becoming exaggerated in length, a properly placed water shoot affords an opportunity of renewing the said arm or spur (see Figure 2). If the water shoot is not needed for either purpose, it should be completely suppressed.

(2) The water shoot is instructional, because its presence, and more particularly in numbers, indicates incorrect judgement on the part of the pruner.

Another type of the annual shoot is called a Sucker, which has no value ex-

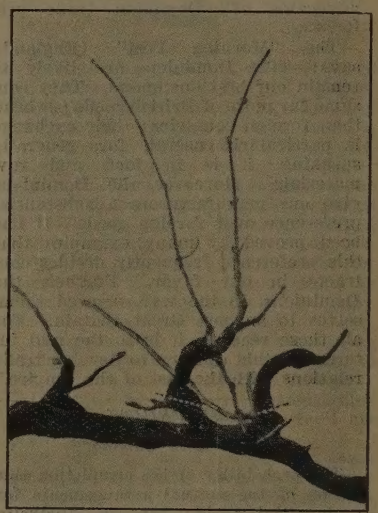
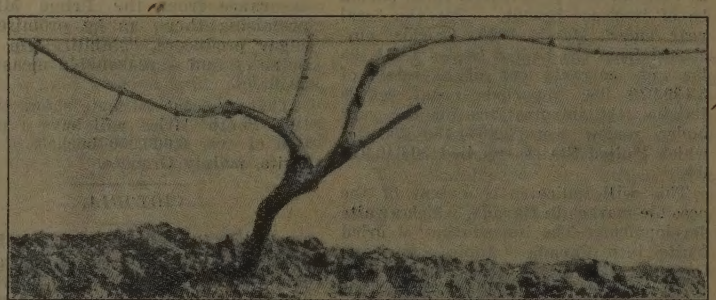
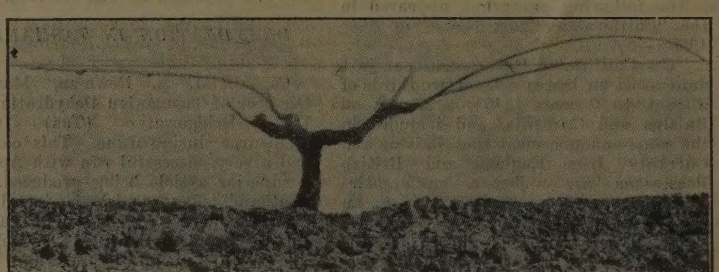


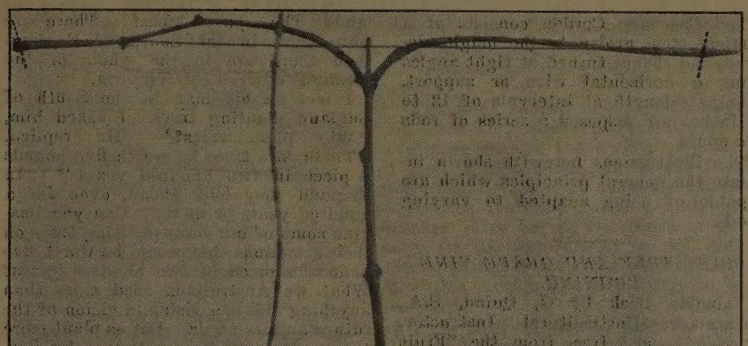
Figure 2. Trellised Vine.
Reduce old secondary Arms at the Dotted Lines.



Forming Bordelais Spalier. Fourth Winter Pruning



Bordelais Spalier (Vine of moderate strength)



Forming the Thomery Shoot. A. Shoot with ordinary development after being pinched once in Summer; position of Second of Winter Pruning dotted. B. Resulting growth before receiving Third Winter Pruning at dotted lines.

cepting that the top of the parent vine be irreparably damaged, necessitating a complete removal from the stem, when the so-called Sucker may be trained into the position formerly occupied by the parent. This is only adopted where the decapitated vine was originally grown from a cutting.

The Treatment of Fruit Wood.

A spur is defined as a portion of last season's wood, carrying from one to three buds.

A rod is that portion of the previous summer's cane possessing from ten to sixteen buds, but a rod would be more clearly described as carrying a greater number of buds than a spur, as in practice the rods chosen on strong vines often do not possess ten buds.

Vine-growers classify their varieties into **Spur Pruned** and **Rod Pruned** types, though with the latter it is necessary wholly or in part to practise **Spur pruning.**

Generally speaking, for table Grapes or Raisins it is desirable to prune hard to keep up the quality of the fruit, although water shoots occur with moderate frequency. In the case of Grapes for wine-making, leading authorities affirm that in good, strong soils, where the vines are vigorous,

rod pruning is applicable

to most of the varieties usually classed among those spur pruned. On the other hand, when subjected to artificial modes of restricting the sap such as "cincturing" or "ringing," now so widely applied to the Zante Currant, spur pruning alone affords the best results.

The following is a classification of the methods of pruning applied to some of the leading varieties:—

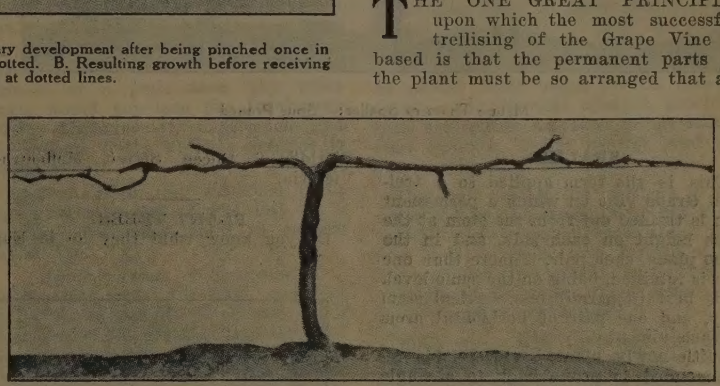
Spur Pruned.—Aramon, Black Hamburgh, Black Alicante, Black Malaga, Black Frontignan, Black Mammoth, Belas Blanco, Buckland Sweetwater, Carignane, Chasselas, Doradillo, Dolcetto, Duke of Buccleugh, Early Green Gros Colman, Grand Turk, Grenache, Gamay, Gouais, Lady Downes' Seedling, Lady's Finger, Mataro, Muscat Gordo Blanco, Muscat Alexandria, Muscat Hamburg, Madresfield Court Black Muscat, Pedro Ximenes, Pride of Australia, Palomino Blanco, Red Prince, Royal Ascot, Royal Muscadine, Red Malaga, Sweetwater, Santa Paula, Trebbiano, Trentham Black, Temperano, Ulliade, Verdelho, Wortley Hall.

Rod and Spur Pruned.—Crystal, Carbenet, Centennial, Daria or Ohanez, Malbeck, Pinot, Quick's Seedling (Cornelian), Raisin des Dames, Riesling, Sultana, Shiraz, Sauvignon, Waltham Cross, Sercial.

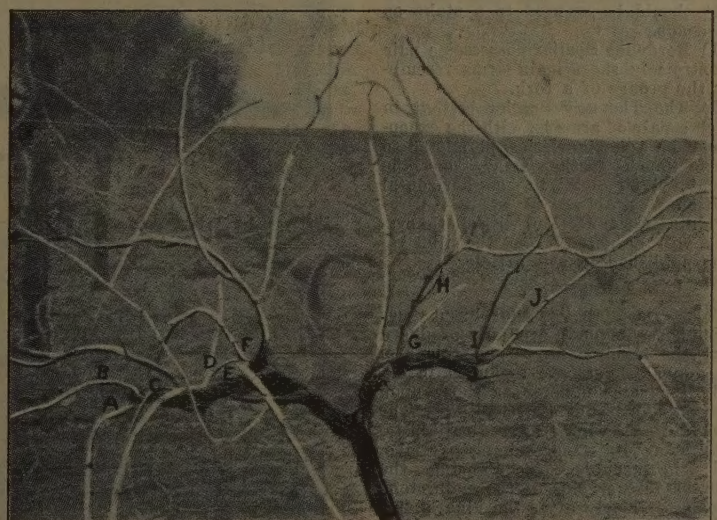
Rod and Spur or Spur Pruned.—Black Prince, Black Frontignan, Black Malaga, Corinth Currant, Mrs. Pinces' Black Muscat, Red Malaga, Red Frontignan, Trentham Black, Zante Currant.

TRELLISING VINES.

THE ONE GREAT PRINCIPLE upon which the most successful trellising of the Grape Vine is based is that the permanent parts of the plant must be so arranged that all



Thomery Spalier after Fourth Winter Pruning.



Sultana Vines trained as Thomery Spaliers with Short Arms

annual growths (fruit shoots) may arise from a common level. This means that the permanent arms, if more than one be used on any given vine, shall be trained not only horizontally, but on the same level above the soil.

The main arms should never be twisted round wires. In no case should spurs or rods be tolerated which arise within about a foot of the bend or angle made where the vertical stem merges into the horizontal main arm or arms, as the position is one of considerable advantage for receiving sap, and any such shoot almost invariably robs the growths situate farther along the main arms.

The Casenave Cordon consists of a vertical stem grown to the height desired, and thence turned at right angles along a horizontal wire or support. Along its length at intervals of 12 to 15 inches are disposed a series of rods and spurs.

The illustrations herewith shown indicate the general principles which are capable of being adapted to varying needs.

FRUIT TREE AND GRAPE VINE PRUNING.

Valuable Book by G, Quinn, S.A., Government Horticultural Instructor, Price 4/9, post free, from the "Fruit World", 9 Queen Street, Melbourne, Victoria.

Mature Thomery Spalier: Spur Pruned

SPALIER.

This is the term applied to a **trellised Grape vine on which a permanent arm is trained out from the stem at the same height on each side, and in the same plane,** each pair, if more than one pair is retained, being on the same level. It is best to permit one vertical stem only, and one pair of horizontal arms to each vine.

With **newly planted vines,** it is recommended to prune back to a single spur of one or two buds, with a view to inducing one very strong shoot to arise during the ensuing summer. This shoot should be secured to a stake as it ascends.

(1) Bordelias Spalier possesses a pair of extremely short main arms resembling the prongs of a fork.

(2) The Thomery Spalier is that in which a pair of arms is, with the exception of on a few varieties, permitted to extend much farther away from the parent stem, but in a horizontal position.

Points in connection with both systems will be noted from the illustrations published in this article.

CORDONS.

This term is applied to trellised vines which have one main arm only produced from the main stem. Upon this arm the annual shoots are arranged in exactly the same manner as those upon the main arms of the Spalier. The Cordon is superior to the Spalier, inasmuch as it is more simply formed, and the trouble of balancing the growths on each side of the main stem, more particularly after the vine is furnished with fruit wood, is avoided. Cordons are known respectively as vertical, oblique, and horizontal.

PLANT TREES.

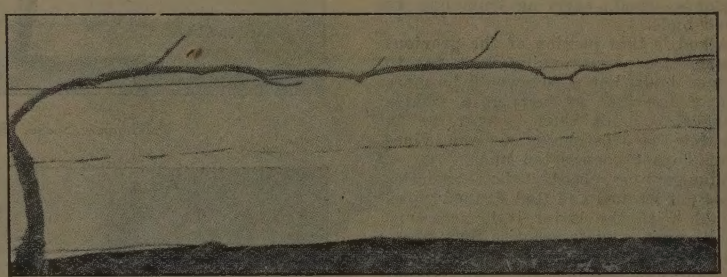
Do you know what they do in England? They plant trees! There are more trees in the South of England than there are in the whole of the Western District of Victoria.

I met an old man in the South of England planting trees. I asked him, "Why plant trees?" He replied, "These 'ere trees be worth five pounds a piece in two hundred years." In England they look ahead, even for a hundred years or more. Can you imagine some of our boys planting trees on their selections that would be worth five pounds a piece in two hundred years? What we Australians need more than anything else is a vision, a vision of the future and its needs. Let us plant more trees!—Extract from a lecture by Rev. T. C. Rentoul, on "Australia, the Land of Opportunity."

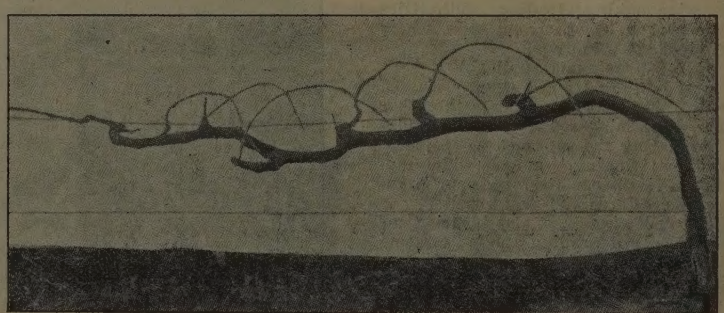
FRUIT TRADE WITH NORTH AMERICA.

A competent authority states from personal observations that a fairly good trade in Apples and Pears could be done both in British Columbia and the United States, but it is impressive that a high standard of grading and packing must be set up, and maintained.

Further, with reference to Columbia, it must be noted that owing to the stringency of the quarantine laws, loss is practically certain to result from the shipment of fruit which is not absolutely free from disease, particularly codlin-moth.



Strong Vine after Third Winter Pruning



Casenave Cordon of moderate strength, Rod Pruned

The Fruit Industry Arbitration Case.

Award To Be Made.

Preliminary Statement by Mr. Justice Powers.

The plaint which has been pending in the Commonwealth Arbitration Court for nearly two years is now nearing finality.

The Australian Workers claims from orchardists employing members of the union, increased wages over and above the wages granted in the earlier awards (against Hans Irvine and others, and W. Arthur and others). The union demanded wages varying up to £7 per week. The fruitgrowers, under the present circumstances of the industry requested that the present award be not varied.

Both sides submitted their evidence during June, and at the conclusion the President of the Court, Mr. Justice Powers intimated that he intended to announce the terms of the award very shortly in relation to fruit pickers and others, notwithstanding that he had been asked to refrain from making an award, because of the state of the industry.

The proposed award is unusual in its elasticity, as it gives (within certain limits) the right of employer and employee to make mutual agreements as to wages and conditions.

The award affects only such employers who were cited, and who employ members of the Australian Workers Union.

In giving, as requested by the Union, an idea of the proposed award before the Courts vacation his Honor said:—

"I am satisfied, notwithstanding the usual predications of ruin to the industry the fruit growers will under the award carry on their business at a profit, and inform the court later on, as usual, that it has worked satisfactorily, and ought not to be altered—that is, when the union asks for variations of the award."

"When a person attemps to buy a fruit farm the prices asked and insisted upon would lead one to the conclusion that fruit growing must be

a very profitable industry

to pay expenses and interest alone on the prices asked."

"On the facts submitted by the chairman of the fruit pool it is clear that the Government, in purchasing the fruit it did from the growers for canning purposes at £10 a ton, has lost a very large sum instead of the growers losing it, and that the growers lost it by selling at £10 a ton. It is also evident that if the cost of canning or otherwise preparing and marketing the canned fruit cannot be considerably reduced it will not pay to send canned fruit to England until prices obtained there by the pool improve, or freights are reduced, or the canning cost reduced."

"The fruit canned and sent to England, however, does not constitute a very large part of the fruit production of the States affected, and if the fruit growers find that they cannot continue to produce fruit for canning and pay ordinary rates for it, the court or the union, or the members of it, will consider any special rates and conditions to allow that section of the industry to be continued."

"It is hard to assume that the cost of the laborer and of the fruit picker are the real cause of the loss on canned fruit in England; but, as the unions rightly complain, the first to be asked to reduce cost is the worker."

"The evidence given was not sufficient to prove that the industry as a whole was carried on at a loss. Some men can live where others starve. The areas planted may have been increased.

The proper trees may not have been planted or been properly attended to. Again, some persons can make the business of a fruit farm pay when others would get into the Insolvency Court. Management, experience and a knowledge of the work in question is necessary.

"Referring to the evidence of a large grower of Apples who lost 2/- a case on 4,000 cases, am I to assume that all the

Apple growers of Tasmania

are sending away 1,000,000 cases of Apples at a loss of 2/- a case every year, or is it not probable that the fruit was sent before it was ready to pack, or packed badly, or that it was inferior fruit, or spoilt by want of proper cold storage, &c. ? The assumption is borne out by the fact that only 8/- a case was said to be realised for the Apples sent to London, and yet in yesterday's London cables the following appears:—

Tasmanian Apples ex. s.s. Moldavia are selling mostly at 13/- to 14/- a case, but New Yorks are realising 13/6 to 14/6 a case. Cleopatras, ex. the s.s. Medic, brought 14/6 to 17/6 at Liverpool; Stumers, 13/- to 15/6; and others, 11/6 to 14/- a case.

"The prices mentioned are at present more than 4/- a case more than the witness received for Apples in London. If the Apples referred to were good, and well packed and good fruit, and sold at the prices referred to (or even at 12/- a case), there would have been a profit of 2/- a case instead of a loss of that amount per case on those sent to London, and the grower out of that profit could certainly pay a fair wage for the work done in growing and picking the fruit."

"As far as the local market is concerned, if the growers like to let the Italians have a monopoly of the retail trade, instead of

opening co-operative stores

or getting some of the profit by a trust, as at Mildura, the workers should not be made to suffer by their neglect. The grower gets a poor return because he allows the middleman to get from 50 to 75 per cent. of the price the consumer has to pay for the fruit, and the industry suffers. Sometimes they get a debit note instead of a credit note, and yet the consumer pays his 4d. to 6d. a pound for Apples, and corresponding rates for other fruit.

"I am, however, convinced on the facts submitted that under existing conditions some branches of the industry

cannot pay exorbitant wages

carry on their work with profit, and I must deal with the conditions as they are; even if they can, as I think, be improved, they cannot be altered in a day.

"*Recognising that position as far as some of the growers are concerned, especially the small growers of soft fruits, fruits for canning, berries, &c., I propose to fix the rates, as Mr. Justice Higgins did, on the four-towns basis, with some addition for lost time to grant allowances to those who provide proper accomodation, and to allow agreements between growers and the union and members of the union, based on actual basic wages for the nearest town in the districts affected,* provided such agreements are sent to the industrial registrar or the nearest local deputy registrar of the court.

That will protect the members of the union and at the same time allow them to take employment on terms they think fair in the circumstances, instead of being compelled to increase the number of unemployed by rates which cannot, in the circumstanees, be paid.

"The rates will therefore be fixed on a four country towns basis, with some allowances for loss of time, except at Mildura and Renmark.

"The rates for skill are not to be altered, and the conditions of work will not be altered, except where it is deemed necessary in justice to the parties."

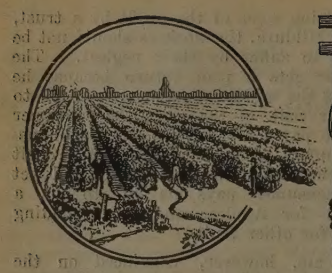
* * * *

The foregoing indicates the intention of the judge, and the award will be subsequently made along these lines; but as experience in the past has proved, it is unwise for any definite undertakings to be given until the actual terms of the award are announced.

For instance, his Honor stated, "The rates for skill will not be altered." Yet if the basic wage be increased, it is anticipated that the rates for skill will be correspondingly increased; probably the meaning is that the **margin** for skill will not be altered.

Comments will be freely made as to the "commercial" views expressed by the Judge. For instance, where he speaks of growers receiving a debit note on apples selling from 4d. to 6d. per lb, does he seriously think that

(*Continued on page 259*)



Dried Fruit Department

THE RAISIN INDUSTRY OF U.S.A.

Fruit Shipped to 75 Countries.

Steady Growth Anticipated.

The American Raisin is making a new record in its invasion of the world's markets. The total exports in the fiscal year 1923, which ends in June 1923, will exceed 100,000,00 pounds against 50,000,000 pounds in the fiscal year of 1922, and 75,000,000 pounds in 1916. The value of the year's exports will approximate £3,000,000 and will also exceed that of any earlier year.

These particulars are taken from the "New York Commercial" of April 9th, 1923, same being kindly supplied by Mr. Stirling Taylor, Director of the Commercial and Industrial Bureau of the Board of Trade, Melbourne.

This high record in the quantity and value of U.S.A. Raisin exports, says the National City Bank of New York, is especially interesting in view of the fact that the other great Raisin field of the world, the Levant, has recently resumed its contributions to the world market. Prior to the war, the area fronting on the eastern end of the Mediterranean was a large contributor to the world Raisin markets, especially those of Europe. With the reduction in agricultural activities in that area during the war, production was greatly minimized and Raisins from the United States were largly imported by Europe and in some cases supplied to their troops in the field, and the world thus came to know the value of the American Raisin.

The growth in world popularity of U.S.A Raisins is evidenced by the fact that the exports advanced from 16,000,000 pounds in 1913 to 56,000,000 in 1918, the closing year of the war, and 110,000,000 in 1919. With return of the Levant to Raisin production and exportation, however, America's exports fell to 53,000,000 pounds in 1920 and 33,000,000 in the short crop year 1921. With the high record of production of 1922, however, which is materially in excess of any earlier year, America's exports for the current fiscal year seem likely to equal the high record of 110,000,000 pounds in the calendar year 1919, in which the Levant had not yet re-entered the world markets.

New Export Factor.

The Raisin is a comparatively new factor in the export trade of U.S.A. It was only in 1898 that the quantity exported was of sufficient importance to obtain a place in the export records of the U.S.A. Government, and the total exports of that year amounted to only 3,000,000 pounds, advancing to 5,500,000 in 1908, 56,000,000 in 1918 and 110,000,000 in 1919.

It is due, however, to the growth in home demand that the Raisin industry of California, has so rapidly developed. The total production of Raisins in California was in 1913 130,000,000 pounds, in 1919 360,000,000, and in 1922 450,000,000, and America is now producing more than one-half of the Raisins of the world. About four-fifths of this big production is consumed in the United States. Of the 3,000,000,000 pounds produced in the past decade, 17 per cent. was exported and the remaining 87 per cent. consumed within the U.S.A. Even this big consumption from their own fields does not fully cover the requirements of the American people.

Great Britain is the largest single buyer of American Raisins, the total exports to that country from U.S.A. in 1922 having been 44,000,000 pounds against only 5,000,000 in 1921.

Canada ranks next to Great Britain in the takings of American Raisins, in 1922, her total for that year being 29,000,000 pounds.

Japan has suddenly developed a taste for American Raisins, exports to that country in 1922 totalling something over 4,000,000 pounds as against 2,000,000 in the preceeding year.

[Let us hope that with the increasing quantities of dried vine fruits from Australian vineyards, full attention will be given to developing both the local and export markets.—Ed. "F.W."]

TRADE WITH SWEDEN.

Messrs. W. B. Chaffey and T. Hopkins, of the Australian Dried Fruits Association, visited Sweden during May, and discussed with the principal traders the prospects of the supply of dried, canned and fresh fruits. Swedish traders gave a favorable reception, and said that Australian dried fruits were the best they had seen. Trial orders were placed, and a desire was expressed for direct shipments of dried and canned fruits. Small shipments of fresh fruits would also be acceptable.

AUSTRALIAN DRIED FRUITS.

Should all growers be compelled to export the same proportion?

A Correspondent says "No."

To the Editor, "Fruit World."

Sir,—In your issue of 1st June is a report of the meeting of the Australian Fruit Council from which it appears it was resolved that legislation be passed making it compulsory for all growers of dried fruits to export the same percentage as the Australian Dried Fruits Association.

I entirely disagree with this proposition. **If the prices of dried fruit had in the past been fixed with a view to induce the local consumer to buy, there would have been much less complaint about over production.** Many of the growers in my district, who are not members of the Australian Dried Fruits Association, are very small growers, and they depend for a living partly on their currant crop and partly on work which they have to obtain outside their own holdings, and it is essential for them to sell the whole of their product for cash. If some scheme could be devised whereby the growers could be paid cash for their fruit, instead of waiting many, many months I feel more small growers could be induced to join the Association.

On the question of price fixing I quote from a Bulletin issued by The National City Bank of New York, April 1923, which all persons desiring to influence legislation in Australia ought to read, mark, learn and inwardly digest.

> "The advocates of Government price-fixing apparently have little comprehension of the complex system of prices which exists throughout the business world, and adjusts production and consumption to each other. There is a far-reaching relationship of prices—an equilibrium of prices—which must be maintained in order that the exchanges may readily go on. These relationships are changing all the time with changes in supply and demand. If a grain crop is short the price of that product must go up in order to throw the demand to some substitute, while if the crop is large the price must go down in order to stimulate consumption. The markets are quick to respond

to these influences. Producers know that their goods must move into consumption or they will be forced to curtail production. **To fix a price above the figure at which goods will be taken for consumption is folly.''**

The writer then gives an example of corn and live stock and proceeds as follows:—

''This example of corn and hogs illustrates the entire price situation. The goods which one group of people produces must be traded for the goods which the other groups produce. Money is a convenient intermediary, but it is a mistake to suppose that anybody, Government included, can pay money for products unless he can turn round and dispose of the products for consumption. It does no class of producers any good to have their products simply pile up in storehouses; that process must soon come to an end. There must be a prompt adjustment of price-relationships throughout industry in order that all kinds of products may be taken off the market and consumed. When the changing character of this relationship is understood the utter impracticability of Government price-fixing will be seen. It may serve a temporary purpose in time of great emergency, like war-time, when the Government is trying to concentrate all the energies of the nation upon one purpose, but as a permanent policy it simply interferes with the beneficent workings of economic law.

Prices Must Conform to Natural Conditions.

A knowledge of the workings of economic law also answers the sensational alarms that are sent out about arbitrary price-fixing in various lines. **Price-fixing by combinations of producers must take account of natural market conditions. The price must be low enough to move the entire product into consumption and high enough to induce sufficient production to meet the demand.** This means that price-fixing cannot for any considerable time be an arbitrary action. It will defeat its purpose unless it complies with both of the foregoing conditions. The arbitrary price-fixer, given ever so much power, really has very little choice. He wants the largest aggregate profit, and in nearly all businesses that is obtained on a large production, hence we find as a rule that big business seeks a large volume of output on a small margin of profit.''

F. G. Scammell

McLaren Vale, S. Australia.

15/6/23

[Mr. Scammell has opened a wide field of discussion; readers who disagree with the arguments submitted are invited to put their side of the case. Ed. "F.W."]

QUEENSLAND

Citrus Grower's Conference

Fumigating Citrus Trees

Seasonable Cultural Items. . . News and Notes

By our correspondent

Mr. E. J. Banfield Passes.

By the decease of Mr. E. J. Banfield (the Beachcomber), of Dunk Island, the North Queensland fruit industry has lost its most ardent advocate. With a keen appreciation of the possibilities of the fertile coastal lands, where rainfall is consistent and soil and climate admit of no improvement, the short-sighted policy which made legitimate effort to foster the production of but little-known luscious tropical fruits, was responsible for frequent and satirical reference in northern press from his pen.

The deserted holdings—deserted on account of lack of transport and other facilities—where rampant weeds now flourish instead of the choicest of tropical horticulture (quite apart from the complete wash out of the northern Banana industry, worth in its palmy days £200,000 per annum, when Bananas were below quarter of their present value), invited the most drastic criticism, which was freely but unavailingly contributed. Though devoting most of his time to literary matters, Mr. Banfield maintained a rather pretentious collection of tropical plants, etc., including the Java Mangosteen, Sapodilla, Mamee Apple, and sundry other fruits not included in any other garden in the State.

Local Markets.

Locally markets are not over-supplied with Queensland fruits. Custard Apple, Pineapple, Banana, and citrus are in fair demand at reasonable rates, but the falling off in temperature is bound to affect the consumption and sale of the latter. The crop generally is light, partly due to drought also to the sucking bug exacting a heavy toll upon the green fruit and subsequently the fruit fly exacting a share of the mature product.

Citrus Growers' Conference.

The conference of citrus growers at Howard did not break much fresh ground. The recently-adopted ***standard fruit*** case was responsible for comment—mostly favourable. The *Orange bug* was considered sufficiently detrimental to warrant a request for the appointment of a special entomologist to deal with citrus pests. A suggestion that a "citriculturist" be appointed from California was supplanted by one in favour of *sending a local man to California* to collect ideas for future dissemination. Growing citrus in soil of even formation under irrigation is a totally different matter from cultivating irregular broken land, and under erratic (or in places excessive) rainfall.

It is cheerfully admitted that our citrus orchards are mainly situated in the wrong part of the State—though the admission is not made by a coastal grower—and as the most suitable conditions are departed from, so the manifold disabilities which add to the cost of production and detract from the quality are accentuated.

Fumigating Citrus Trees.

A further recommendation from the conference to the effect that experiments should be conducted in cyaniding against pests seems rather belated. Over 25 years ago experiments were conducted on a liberal scale, and as a result of the efficacy whole districts were treated by the Department at a nominal cost per tree. The system was adopted fairly generally, and the results were satisfactory. The "clean up" effected and maintained in the principal districts was general, and in the re-established vigour of the trees the presence of scale was limited; then spraying, which entailed less outfit, was adopted. During the war term cyanide was almost unprocurable at any price, also suitable material for sheets, so that spraying was entirely in vogue and has, with isolated exceptions, remained so.

The general opinion now is that it is not effective, and if we are to have clean trees, cyaniding must take its place.

Deciduous Trees and Vines.

The consistent drop in temperature has caused the hardening of soft growth, and the fall of leaf of deciduous trees and Grape vines.

Deciduous fruits are almost entirely confined to the Southern Tableland, and it would be an all-round advantage if the majority of the few included on the coast were relegated to other spheres instead of serving the purpose of maintaining a supply of fruit fly during early summer to later attack Mangoes and finish up with citrus toward winter.

Pruning in the warmer districts should be completed this month.

Late pruning of vines frequently results in a weakened growth.

Though our best Grapes are grown in the cooler districts, a limited range of table varieties is satisfactorily produced on the coast, which ripen at a most suitable time.

Spraying against *downy mildew* removes the necessity for the previous practice of swabbing the stools in winter.

Seasonable Cultural Hints.

Pruning, general cleaning and fertilising are mostly performed during this month, also *planting and propagation* by grafting where this method is still practised.

Amongst tropical varieties (other than Pineapples, of which the winter crop will be largely available, though much depends upon prevailing temperatures), little can be attempted.

Winter planting of tropical fruits is not recommended and a little more attention could well be given to the (semi-deciduous) *Custard Apple*, in which there is no perceptible rise of sap until early September. The growth is not hardened until the end of July, and taking up the plants earlier is distinctly detrimental and frequently reflected in the ensuing growth.

Through the consideration of a private importer the collection of trees at State Nursery has been augmented by the addition of a collection of *Indian Mangoes*, of which no inarched trees have for a decade been imported.

A large number of *"clean" Banana suckers* are expected to be available for the coming season (the difficulty will be to find clean areas in which to place them) and a quantity of *Mango* and *Avocado Pear* have been raised for working.

With what results Mangoes can be propagated in the south other than by the tedious method of inarching, will be watched with interest.

A NEW REGULATION.

Fruit from Districts Infected with Fruit Fly Prohibited from Entering the Stanthorpe Area.

Regulation No. 56, under the Diseases in Plants Act 1916, whereby the importation of certain fruits into the Stanthorpe fruit district were restricted, has been rescinded, and a regulation, No. 57, has been issued in its place. This new regulation, which takes effect as from May 19, 1923, and shall remain in force until March 31, 1924, stipulates that the introduction of such fruits as apples, apricots, barberry, Brazilian cherry, cherry, citrons, custard apple, fig, gooseberry (cape), granadilla, grape, guava, kai apple, kumquat, lemon, lime, loquat, mandarin, mango, mulberry, nectarine, orange, papaw, passion fruit, peach, pear, persimmon, plum and quince into that part of the State enclosed by the southern border, and lines commencing at Cullendore Crossing, in the border, passing through Silverwood, Mountside and Granite Hill, and then due west through Gore to 151 degrees 30 minutes meridian, then south along that meridian to the border, from any districts within which the common Queensland fruit fly, the spotted fruit fly, or the Mediterranean fruit fly are known to exist, is prohibited, unless such fruit has been in cold storage for a period of not less than 21 days, at a temperature of not more than 35 degrees Fahr.

Fruit-packing classes, which are now being conducted by a joint arrangement between the Apicultural and Education Departments, are proving satisfactory, and are meeting with the approval of growers.

RETENTION OF BANANA DUTY.

The defeat of the motion seeking a reduction in the banana duty, at the recent Chamber of Commerce congress at Brisbane, has given great satisfaction in this State (writes the Queensland correspondent of the Melbourne "Argus"), though it may be viewed otherwise in some of the other States. Years ago banana-growing was largely confined to the northern part of the State, but it is now engaged in in all parts of the coastal areas, and is becoming an important rural industry. A goodly number of returned soldiers have gone on to banana farms, and are succeeding. The retention of the duty is regarded here as an essential part of the scheme of a "White Australia."

BRISBANE MERCHANTS PLAY CRICKET.

Some Remarkable Happenings.

Brisbane fruit merchants recently turned from their business cares, and journeyed, via Cleveland, to Russell Island, to play a cricket match against the local islanders. The latter won, by scoring 73 against the merchants' 17. The picnic was greatly enjoyed. The batsmen went in in pears, but there was a depression in the fruit industry and a boom in poultry, as witness the number of ducks. The merchants fielded well in the slips, because they were used to handling bananas. The man fielding at silly point got a knock on his coconut. Another fellow dropped a catch, after getting the ball in his pa-paw. A player who was given out, "stumped," strongly objected, stating he still had eighteen pence in his pocket. One wag said that the girls who served refreshments were peaches. He was handed a lemon, and got the pip. During the match several men were run out, but afterwards it was reported that none were run in.

A USEFUL LIME WASH.

The following mixture may be used on rough timber, brickwork, or corrugated iron, and will reduce the temperature of houses when applied to the roof equally as well as the best refrigerating paint sold:—10 lb. of fresh unslaked stone lime, 1 lb. glue, 1 lb. powdered alum.

Slake the lime with hot water, keeping it well covered over during slaking. Dissolve the glue, also the alum, in boiling water, and add to the already slaked lmie, taking care not to make too thin. Strain the whole as for paint, and cover over for two days or more, when it is ready for use. Apply with an ordinary two-knot whitewash brush, giving the work two coats, the first to be thoroughly set before the next is applied; and, if on roofs or tanks, apply in cool weather. Coloring matter (ochres) may be added if necessary. A little blue improves at all times.

The Sugar Position.

Sugar Pool and Continuance of Embargo Promised.

Statement by Minister for Customs Criticised.

The Prime Minister (Mr. Bruce) has announced that the Federal Government is prepared to continue the embargo on imported sugar for two years, provided the sugar pool be created, the growers to be guaranteed £27 per ton. At the expiration of two years, the embargo will be absolutely done away with, and the industry will continue to receive its protection through the tariff.

Prime Minister's Offer.

The decisions of the Cabinet, as stated by the Prime Minister, are as follows:—

1. The industry to form a pool, free from the control of the Commonwealth Government, and to buy raw sugar for the 1923-1924 season at not more than £27 per ton of 94 net titre, f.o.b. at the mill.

2. The pool to enter into negotiations with the C.S.R. Co. and the Milliquin Co. for an agreement to refine and distribute sugar on the lines of the existing refining agreements, the price for such service to be subject to the approval of the Commonwealth Government.

3. The pool to provide sugar for the purpose of manufactured goods for export, at a price equal to the current world's parity.

4. A competent authority, upon which the Commonwealth Government shall be represented, to be appointed to determine the price at which it is to be supplied for the export trade.

5. The price for raw sugar for the 1924-25 season to be determined, after investigation, by the tribunal, and to be based upon the cost of efficient production in reasonably good districts, and under normal conditions, such price not to exceed £27 per ton.

6. The tribunal (see Clause 5) to have regard, in ascertaining the cost of production, to excessive wages, if any, paid in the sugar industry as compared with other primary industries, owing, say, to the pool's fixed price for raw sugar.

7. The pool to give the public the full advantage of any reduction, including costs of refining and distribution, effected from time to time.

8. Subject to the foregoing conditions, the Commonwealth agrees to continue the present prohibition of importations of black and brown sugar until June 30, 1925, except (a) as to foreign sugar necessary—as determined by the competent authority—to meet any shortage in Australia, and (b) as to any kind of sugar not available in Australia that may be required for special manufacturng processes.

Mr. Bruce said it is to be distinctly understood that in no circumstances will the embargo be continued after

June 30, 1925, after which date the sugar industry will be protected against unfair competition by means of a Customs duty, in the same way as every industry is protected. This duty will be of an amount which will enable the industry to carry on at a reasonable profit when the price of black-grown sugar is normal.

The Commonwealth's proposals, continued Mr. Bruce, will procure the following beneficial results:—To the consumers, the retail price will be reduced by ½d. per lb. early in October; to the manufacturers—(1) Sugar for home trade will, at the same time, be reduced by at least £5 a ton; (2) sugar for the export trade will be supplied from Australian stocks, at the actual world's parity, in such a manner that manufacturers will not be at a disadvantage by not having freedom to import; (3) foreign sugar necessary for special manufacturing processes will be allowed entry; to the sugar industry—(1) the huge surplus stocks will not be a serious and unfair menace to the next two crops; (2) security and stability will be guaranteed for the next two years; (3) those two years will act for any emergency that may arise thereafter.

. . . . . .

Sugar producers are not satisfied with the terms offered, as they believe the embargo should have been imposed for a longer term. Nevertheless, they have accepted the Prime Minister's terms under protest.

. . . . . .

From the fruitgrowers' standpoint, the announcement that the Government intended to continue the embargo for two years was received with great regret. It was hoped that the embargo would have been lifted, and the present duty of £9/6/8 would not be increased.

Does the Price of Sugar Affect the Fruit Industry?

A circular has been issued to fruitgrowers' societies throughout Australia by the Minister for Trade and Customs (Mr. Chapman), who states that complaints have frequently been made that the depression in the fruit industry has been "entirely caused" by the increased price of Australian sugar. The Minister then takes the season 1918-19, and shows that 29 per cent. of that year's fruit crop was made into jam and canned fruits, of which 20 per cent. was exported. Dried fruit was 2.6, and fruit "eaten fresh" 68.3, of which 4.8 was exported. The statement continues:—"Sugar costs affect only that portion of fruit which is processed into jams and canned fruits, the present percentage being slightly under 20 per cent. If the sugar were now supplied for nothing, jams and canned fruits would be dearer than in pre-war days."

We hope to publish the statement in full at an early date, but sufficient has been given to show that the Minister has relied upon superficial information only in the compilation of this statement.

In the first place, who made the statement that the depression has been "entirely caused" through increased sugar prices? Though intimately in touch with the whole position, we have never heard of this alleged statement. Nevertheless, fruitgrowers have never hesitated to emphasise the restrictive effect on their industry caused by Government sugar control. It is a very important factor. The Minister is at pains to knock down a bogey of his own creation.

In arriving at the "20 per cent." which Mr. Chapman states is alone affected by the sugar position, one would have thought that an average over a series of years would have been taken, instead of selecting one year, and that being the "peak" year in the jam and canned fruit export trade.

But even if 20 per cent. were the correct percentage, it must be remembered that this includes the huge irrigation enterprises, which already cost the Australian Governments £20,000,000. The struggling settlers in these areas are amongst the principal sufferers.

The basis of Mr. Chapman's reasoning is entirely wrong.

The figures he quotes refer to the factory trade, without taking into account the million Australian homes which process fruit. The Minister has divided the fruit industry into three sections—(1) Fruit for jam and canning factories; (2) Dried fruits; (3) Eaten fresh. This is an astonishing statement, for it leaves out of reckoning the enormous quantities of fruit which are used for the table, in pies, stewed fruit, fruit salads, puddings, etc. It is indicative of the carelessness with which the figures have been compiled.

The statement that "if the sugar were provided free of cost, jam and canned fruits would be substantially dearer than in pre-war times." is an absurdity.

Let the Minister offer "sugar for nothing" to housewives and factories, and the fruitgrowers will not ask for another fruit pool. Mr. Chapman's statement is based on the 1918-19 season, and, as sugar then cost £27/17/6 per ton, these figures can have very little application to the seasons 1920-21 and 1921-22, when sugar varied between £46/10/- and £46/1/6 per ton, and 1922-23, during which the price was £39/18/- per ton. These are the three seasons in which the fruitgrowers and manufacturers felt the effects of dear sugar, and they are also the three seasons in which the Government Fruit Pool operated, in order to avert a national crisis in the fruitgrowing industry.

Fruitgrowers and manufacturers have always been sympathetic towards the Australian sugar industry, and have supported a tariff that would be sufficient to let the industry live and prosper.

On the pre-election statements of the Nationalists and Country Party candidates, no one expected that the Government would announce that the embargo on imported sugars would be continued after June, 1923.

The industries connected with fruitgrowing will never be stabilised by the continuance of the embargo, which prohibits the importation of all outside sugar, and this restrictive method, in place of a fair tariff and free market, will, from its very uncertainty, retard the development of the fruit industry throughout Australia.

FOUR VALUABLE TOMATO VARIETIES.

Strongly Wilt-resistant.

Commended by Victorian Government Plant Pathologist.

Specimen fruits of four new and valuable tomato varieties were exhibited at the April meeting of the Nurserymen and Seedsmen's Association, of Victoria, by Mr. T. Hutchinson. Nurseryman of Brighton North, (Vic).

These varieties were Norton, Marvel, Norduke and Columbia. They were obtained by Mr. Hutchinson from U.S.A., because of the splendid reports regarding their wilt-resisting qualities.

On receiving the seeds, Mr. Hutchinson carefully raised the plants, and distributed same to tomato growers, who could watch their growth and characteristics.

The specimens exhibited at the meeting were specially brought from Tatura, Victoria. None of the varieties became affected by the "tomato spotted wilt," although the "wilt," was prevalent in the district, and attacked other varieties.

A special visit was made by Mr. C. C. Brittlebank, the noted Plant Pathologist of the Victorian Government. After his inspection Mr. Brittlebank, wrote to Mr. Hutchinson as follows:—

"On March 26, I visited Tatura and inspected the Tomato Plants grown from imported American wilt resistant seed, and found them to be free from disease. The varieties were Marvel, Norton, Columbia and Norduke, all of which have heavy crops of clean and beautifully shaped fruit: it is a very long time since I have seen such a fine lot of healthy plants.

I trust they will retain their resistant qualities under Australian conditions."

The tomatoes caused favorable comment amongst the members present. The president stated that the bringing of exhibits before the meetings was one of the best ideas which had been projected. He complimented Mr. Hutchinson on the exhibits, and said that if the Association had done nothing else it would have justified its existence by providing an opportunity for displaying these valuable tomatoes.

Fruitgrowing Under Irrigation.

Manuring Pruning Seasonable Orchard Notes.

(By Our Special Correspondent.)

COPIOUS RAINS HAVE FALLEN throughout the Murray irrigation areas, the subsoil has become throughly wet, thus insuring root activity during the winter months.

Root growth which takes place during the winter and spring months, perhaps plays a far greater influence upon the coming crop than most growers realise.

Although the top portion of the trees and vines may be dormant during the winter, under normal conditions the roots are active, producing new feeding roots that are ready to supply the new sap as soon as the leaves and flowers commence to expand in spring.

Should the soil become dry during the winter, as often happens in the semi-arid regions in which the majority of our irrigation areas are situated, root activity ceases. In the Spring the tree starts into growth, the demands upon sap are more than the roots can readily supply and the flowers are shed resulting in a poor setting of fruit.

Not only have the trees benefited but the late sown cover crops are making rapid headway as the soil is comparatively warm owing to the absence of frosts.

Hay crops are growing splendidly, and given good spring rains, good cuts should be assured.

Seasonal Work.

The picking of **Citrus crop**, pruning of trees and **vines** are engaging the attention of growers at present.

The Orange crop as previously reported is very light, many growers are finding that their crop is not up to their estimates.

The **stone fruit trees** are generally showing healthy fruit wood, especially is this the case with the Peach and Nectarine.

The Peaches grown for drying are mainly Elberta, Lady Palmerston, Salwey and Early Crawford. Of these the first three usually fruit freely and can be pruned fairly severely. With the Early Crawford growers will find it advantageous to leave

plenty of fruit wood

and to leave it long. This Peach fruits towards the ends of the fruit shoots so that this wood should not be topped, where too dense some may be cut away to the base buds to refurnish the limbs with healthy fruit wood. From the untopped fruiting laterals small fruit growths arise during the summer at the next winter's pruning the laterals can be shortened in to the desired number of twigs.

In dealing with the **Nectarine** one must leave plenty of fruit wood to insure a good crop, as most varieties are liable to shed many of their flowers. Where only a small number of trees are planted, they may be left unpruned until the crop has set.

With the **Apricot** trees many weak fruit spurs will be found owing to the heavy call upon the sap supply during last season by the exceptionally heavy crop that was carried. Usually after a heavy crop a light one follows, consequently pruners should retain as much healthy fruit wood on their trees as possible to carry fruit.

Where the fruiting wood has subdivided many times, some of the subdivisions should be removed in order to strengthen the remaining wood.

All old spent growths should be cut away, and where the fruiting wood is too dense it should be thinned out.

MANURING.

DURING WINTER AND SPRING months the fertilising of orchards and vineyards is usually carried out.

In fertilising an orchard one should have a knowledge of what is lacking in the particular plantation with which he has to deal.

Chemical analyses are of little value other than showing the quantities of different plant foods in the soil; they do not show which foods are available to the plants. Certain constituents may be shown on anaylsis to be plentiful in the soil, yet plants may suffer for the want of this particular food as it is in a condition in which the plants cannot absorb it.

Series of experiments carried out systemically and the results being carefully tabulated from season to season are the only reliable data upon which one can rely as a guide to what will give the best results.

Experimenting is a costly practice and one that but few growers have money and time to spend upon, hence the necessity of Government experiment stations.

Taking the experience gained from the various Government plots in the Murray Valley Irrigation areas as a basis, one of the most important plant foods viz., **Nitrogen** is shown to be very deficient in the soils.

Humus is also found lacking, and where possible leguminous crops should be sown and ploughed under, these crops replenish the Nitrogen content, and increase the humus supply.

These crops should have been sown in Autumn and where they were omitted other means must be employed to add the Nitrogen to the soil.

There are several fertilisers which contain Nitrogen, such as Sulphate of Ammonia, Nitrate of Soda, Blood Manure, and Bone dust, the last named only contains 3 per cent. of Nitrogen, but also contains Phosphate of Lime.

The application of **Phosphoric acid** has also been found to give increased yields, and is usually supplied in the form of Mineral Superphosphate, Bone dust, Bone Superphosphate or Ground Phosphatic rock.

Small applications of Potash are also advocated, this is usually supplied by adding Potassium Sulphate or Chloride On lands that are likely to contain a fair percentage of Sodium Chloride (common salt) the application of the Chloride is not advisable, the Sulphate being the better fertiliser.

From the foregoing one may draw the conclusions that a complete fertiliser will give the best returns.

The following mixture is advocated merely as a guide to growers, the quantities should be increased or decreased as each case demands.

3 to 5 cwt. Superphosphate per acre.

2 to 3 cwt. Sulphate Ammonia per acre.

1 to 2 cwt. Sulphate Potash per acre.

Bonedust may be substituted for the Super, the advantage gained is found in the small percentage of Nitrogen contained in it. Though the phosphoric acid will be longer in being made available to the plant.

The Nitrate of Soda is available at once to the plants, while the Sulphate of Ammonia has to undergo a chemical action in the soil and be converted into a Nitrate before the plant can absorb it. This action usually takes place very rapidly in the soil. Blood Manure has to undergo decomposition before the Nitrogen becomes available. The Sulphate of Ammonia is the cheapest form in which to purchase Nitrogen.

Superphosphate and Bone dust should be applied early as some time must elapse before the constituents can

undergo chemical action

and become available for plant life. These fertilisers may be sown during the winter and early spring.

Sulphates of Potash and Ammonia are readily soluble in water consequently if sown early may be washed deep into the soil beyond the roots of the plants. These fertlisers should be applied when the plants are growing, preferably two applications should be made. One in Spring, in the case of citrus the second in late Summer just prior to the Autumn growth, with vines the second should be applied about December.

The idea is to assist the plants when the heaviest call is being made on the plant, first when the plants are setting their fruit, the second when the fruit is being matured.

A certain lady was very much grieved at the death of her husband, and accordingly had the words "Rest in Peace" engraved on the tombstone. Later, however, she learnt that her husband had left her out of his will. Whereupon she commissioned the mason to add the following words, "Till we meet again."

South Australian Agricultural Bureau.

Conference of River Murray Branches.

Enthusiastic and Successful Gathering.

AN important Conference of the River Murray branches of the South Australian Agricultural Bureau, was opened by the Director of Agriculture (Professor Perkins) at Renmark, S.A. on May 22nd.

The delegates to the conference were:—

Renmark.—Messrs. F. Cole, W. E. Muspratt, E. Morley-Taylor, G. A. Martin, W. F. Appleby, F. H. Basey, C. S. Ruston, Norman McDougall, M. B. Geneste, H. D. Howie, V. R. Kemp, H. R. Little, A. Strahan, W. J. Connolly, W. B. Crerar, G. Martin, W. de St. Clucas, P. Van Velson, J. P. Higgins, J. Henry Jacobs, S. W. Coombe, W. L. F. Taylor, M. J. Tucker.

Berri.—W. R. Lewis, L. A. Chapple, C. G. Grasby, A. V. Mills, Wilfred Partridge, P. M. Wilksch, E. von Bertouch.

Winkie.—H. W. von Bertouch, A. Bond, A. C. Ingerson, J. Gardner, A. Herriott.

Glossop.—G. G. Jackson, J. E. Hamlyn, W. N. Ellis.

Lone Gum and Monash.—H. Beriman, R. W. McCreanor, L. H. Maddern, W. S. Mawby, H. W. Nicholas.

Block E.—Len Pitt, A. W. Flaherty

Waikerie.—H. H. Lehmann, H. D. Lehmann, J. J. Bannear, C. Redman, F. H. Frith.

Mypolonga.—K. F. Dowding, D. J. West, H. Hill, G. E. Harner.

New Residence.—C. W. T. Tschirpig, F. W. Kassulke, H. H. Klan, F. J. Ford, E. O. Arnold.

Moorook.—A. G. Carne, E. A. Leddicoat, A. Schenscher, S. Sanders, C. S. Baily.

Loxton.—P. A. H. Thiele, F. G. Nettleton, S. Fuller, H. Drever.

Barmera.—R. M. Simes, J. W. O. Cornie.

Mildura.—D. Gordon, A. R. Smart, H. F. Paul, J. Lochhead, S. M. Semmens, A. V. Lyon.

Red Cliffs.—R. W. Civil, F W. Fairweather.

Visitors.—W. R. Tamblyn, V. A. Buchanan, W. E. Hartford (Adelaide).

There were also present: Prof. Perkins. Director of Agriculture; Messrs. H. Wicks, member of the Advisory Board; C. G. Savage Deputy Horticultural Instructor and Manager of the Berri Experimental Farm; H. J. Finnis, secretary of the Advisory Board: Muspratt, Horticultural Advisor and Cock, Superintendent of Irrigation at Berri.

Mr. Woodham, chairman of the Renmark branch, presided.

Professor Perkins in opening the Conference referred to the necessity for developing markets. With regard to the drainage problem concerted action was necessary. If the agricultural authorities could do anything to solve the problem it would be time and money well spent. The annual Pruning Competitions were of great value. The aim was to give the settlers technical skill.

CONFERENCE PROCEDURE.

Merbein Re-search Farm.—Mr. H. F. Paul of Mildura, read a paper on the aims and objects of the research farm at Merbein, stating that he was glad to be present and that the border-line between the States was only imaginary.

Dehydration.—Mr. J. Taylor, read a paper on dehydration for Col. Dolman, who was unavoidably absent.

Veterinary Services.—Mr. F. J. Foord read a paper strongly advocating the support of district veterinary officers, and on the motion of Mr. Basey seconded by Mr Thiele, it was resolved to request the Advisory Board of Agriculture to draft a scheme.

Diseases of the Vine.—Professor Perkins, gave an adddress on diseases of the vine and answered a number of questions.

Berri Experimental Orchard.—Mr. Savage of the Berri Experimental Orchard, gave a resume of the result of the year's work at the orchard.

Factors affecting Vineyard Yields.—Mr. A. V. Lyon, scientist to the Mildura and District Vineyards Protection Board, read a paper on the factors affecting vineyard yields. In each case questions were asked and answered.

Resolutions by the Conference.

Marketing Fruit.—Glossop branch moved: "That the Government be urged to find markets for our produce."

Mr. Basey said he considered that the Government was already doing all that was possible.

Mr. Howard Paul said he thought that it was not so much the question of finding markets as of keeping the present markets.

Mr. Basey moved as an amendment: "That the conference record appreciation of the present efforts of the Government." Motion and amendment were lost.

Dehydration.—Monash and Lone Gum branches moved: "That the Government be asked to instal a dehydrating plant at the Berri experimental orchard for the purpose of experimenting in the treatment of Murray River produce, and also that reports of same be furnished."

Mr. Basey said he thought that the resolution was premature, as there were not sufficient demonstrations in dehydration in Australia to warrant the plant.

Another opinion was that it would be well to wait the results of work with the Mildura plant.

The motion was lost.

Drainage and Salt.—Mr. W. Partridge, Berri branch, moved:—

That this conference is of opinion that before any area of land is opened for irrigation, a thorough soil survey should be made to determine, firstly, whether the soil is suitable for cultivation: if so, for what class or classes of products—especially if the soil contains a dangerous proportion of salt or is liable to seepage.

Secondly, if such salinity or seepage can be overcome by drainage and at what cost, and that no land be brought under irrigation where cost of drainage is likely to exceed the value of the land so drained.

After being seconded by Mr. Basey, the resolution was unamimously carried.

Travelling Citriculturist.—Mr. Basey moved, seconded by Mr. Partridge:—

"That the Government be asked to appoint a travelling citriculturist and viticulturist for the Murray districts (South Australia)—Carried.

Instructor for Soldier Settlers.—Mr. H. S. Taylor moved:—

"That **the Government be asked to appoint an instructor to soldier settlers.**" Carried.

Locking the Murray.—The Berri branch moved:

"That this conference urges the Government to consider the locking of the Murray as of urgent necessity." Carried.

Next Conference.—A resolution that **Murray Bridge** be the place of the next general conference was carried unanimously.

Appreciation.—Mr. Lewis moved, seconded by Mr. Basey:

"That the conference place on record appreciation of the visit of the Mildura delegates and of the useful paper and remarks of Mr. Lyon."

The resolution was carried with enthusiasm, after cordial support by the chairman of the conference.

Mr. Howard Paul, chairman of the Mildura Vineyards Protection Board, in response, stated that the Mildura visitors were greatly pleased at the invitation extended to them, and were glad to attend.

Mr. Lyon supported Mr. Paul, and the chairman's final remarks, as the conference closed, was that it had been one of the best he had ever attended.—"Sunraysia Daily."

CORRECTION.

At the opening of the Victorian Fruitgrowers' Convention in May, respectful reference was made to the careers of the pioneers who recently passed away, viz., Messrs. Tom Petty, R. Clay and W. Bailey. By an oversight, which we regret, the latter's name was omitted from the published report.

To Find the Circumference of a Circle. Multiply the diameter by 3.1416, or by 3 1-7th.

Some Impressions of California

Australian Delegate Returns with Valuable Information.

"Advertise and Merchandise a Standardised Product on a Stabilised Market."

The Griffith Producers Co-operative Co. Ltd., Murrumbidgee Irrigation Areas, N.S.W., recently took the progressive step of sending one of their able and enthusiastic members, Mr. J. H. S. Vagg, to California to study conditions there.

Mr. Vagg has justified the confidence reposed in him, having absorbed just the information necessary to be of service to his fellow producers. Thus fitted for larger usefulness, Mr. Vagg will be in a position to impart his knowledge and experience towards uplifting and stabilising the fruit industry.

The article herewith is a brief summary of Mr. Vagg's address at Griffith, N.S.W. In later issues we hope to publish additional information.

FRUITGROWERS in California are well organised states Mr. J. H. S. Vagg, there are the Prune and Apricot Association, the Raisin-growers' Association, the Peach and Fig-growers' Association. In the Citrus Industry the California Fruitgrowers' Exchange is purely a sales organisation. In summer fruits the huge Californian Fruit Exchange is also a sales concern only.

The Californian Fruitgrowers Exchange has been in existence for over 20 years, and now controls about 75 per cent. of Californian Citrus Fruits. **The organisation was created mainly because of the fear of over production, and the necessity for developing the market in advance of the increased production.**

The Exchange has no individual membership, but is made up of about 20 district Exchanges, the latter being constituted in membership by local co-operative associations which have a purely local sphere of activity. The growth of the Exchange has been steady and continuous.

The bulk of the citrus not controlled by the Exchange is handled on a commission basis by semi-cooperative concerns. The latter pay a slightly higher price net to the grower than does the Exchange, they having the advantages of the advertising propaganda without contributing to its cost.

The Prune and Apricot Growers' Association is different in principle, having individual growers as members who pay a fee of ten dollars, and contract to deliver their entire crop to the Association. These contracts usually run for from 5 to 7 years.

Californian experience shows that loyalty is essential, and that the Association must control at least 75 per cent. of the product. Experience has demonstrated that:—

(1) Speculators cannot be depended on to develop and sustain a stable market. They have little interest in maintaining a market level, and operate more profitably on a low priced article than a high one.

(2) No commodity sold on a speculative market can be profitably handled in ever-increasing quantities.

Continuing, Mr. Vagg stated that **dried fruits** are now being produced in larger quantities than the local market could absorb, but the export of large quantities presented many difficulties. He had seen choice Prunes packed in California, which on arrival in Australia were almost worthless. He suggested that Australian dried fruit be sent in bulk, and re-packed at destination, such as, for instance, London. The idea at present seemed ridiculous to some, but he believed that with State-wide co-operation it would be a commercial success.

As a result of their marketing and packing organisations the **Prune and Apricot** growers are now delivering to the consumer fruit at no more than a 25 per cent. raise on the producers' return. Under the old system the producer was only receiving one-third to one-quarter of what the consumer paid.

It was interesting to note that the acreage under Prunes in California in 1921 was 140,000 acres, while 55,000 acres was the extent of the Apricot planting at that time. The 1922 crop of these two fruits ran into 200,000,000 lbs., or 100,000 tons. The value of this crop was estimated to be from £10,000,000 to £15,000,000, while the investment in orchards represented up wards of £40,000,000. The membership is over 10,000. The management of this very large association says that the greatest factor in its success is the adoption of the modern sales ideas, and a strict observance of their slogan, which is to **advertise and merchandise a standardised product on a stabilised market.**

Co-operation is the only means by which growers can be guaranteed a a fair market price every season and is the only means of establishing a uniform quality standard pack necessary to maintain and develop markets

The **Raisin** growing association is having a hard fight to dispose of the products at prices which will cover the cost of production. They are looking to the restoration of normal conditions in Great Britain and on the Continent to ease the position for them.

The **Peach and Fig Growers' Association** did not assume control of over 75 per cent. of the Peach crop until 1916. From 1902 until that year the average price paid to growers was less than 2½d. per lb., while from 1916 until 1922, during which time the association did control over 75 per cent of the dried Peach crop, the average price paid to growers was about 6d. per lb. This performance was the more meritorious, because during the last period the annual crop ranged from 27,000 to 39,000 tons, while during the earlier term of low prices the average was about from 20,000 to 23,000 tons per annum. With figures such as these it seems scarcely necessary to advance further examples of the advantages of the co-operative system of marketing.

Lemons.—There is an organisation in California for handling Lemons entirely.

The total of fruit received from growers for the season was 11,000 tons. The total shipped to market was 9,500 tons. The loss from frosts, shrinkage and decay was a little over 1,000 tons, or, to put it in percentages, 10 per cent. of the total delivery. The balance of 500 tons (4 per cent.) was shipped to the by-products plant.

The average return f.o.b. packing house, per packed box, was 4 dollars 94 cents—about £1. The average expense per packed box was 4/10d. (excluding freight). Average price per lb. shipped f.o.b. packing house 3¾d., and the average price per lb. shipped weight net to grower was 2½d.

The average cost of picking, per field box, (similar in size to our lug-box. The overhead expenses per box was 1/3d. The toal number of boxes shipped was 260,000.

The value of the buildings is £27,000; equipment and railway siding, £4,800 The value of the automobiles, four in use, is £2,400.

The picking season for Navel Oranges is regulated by State law, so as not to commence before November 1, (which would correspond with June 1st. in Australia).

This is to prevent marketing of immature fruit.

It is put on rail by December 15 to catch important markets, an incentive to getting the fruit off the trees quickly is the danger from freezing. Frost protection methods not being so highly developed as in Southern California.

If you imagine the whole of our Navels shipped from here by the end of the first or second week in June, you will get a fair idea of the stage

of maturity of the fruit when it goes to market from central California.

The State law, besides tying growers down to a date at which picking may commence, also requires what is known as the 8 to 1 test, which is practically 8 of sugar to 1 of acid, and also a 25 per cent. natural color.

Practically the whole of the fruit marketed from central California is artificially colored per means of the sweating process. Shipments of Navels are practically suspended from December 15 until the New Year. At that time the Navels are ready in southern California, which is the main citrus-growing belt of the State, about 200,00 acres being in bearing in this section.

From the beginning of the New Year right along till May, Navels are being shipped from the south. At that time the late Valencia is ready for picking back in central California, and their fruit keeps the market well supplied until July or August, when the southern Valencias commence, and run along until December and sometimes January, thus overlapping the next years Navels from central California.

You will thus see how very kind nature has been to the citrus producers on that side of the world, enabling them to keep their whole sales organisation in full working force all the year round.

A very large proportion of their citrus crop is sold before ever it leaves the packing house. All orders for fruit are sent by the buyers through the central exchange, whose head office is in Los Angeles. A buyer may ask for a particular brand or pack, in which case the order is sent on to district exchange, who, in turn pass it to the association represented by that brand. Should no particular brand be stipulated or asked for, the central exchange equitably distributes the orders amongst the different district exchanges who, in turn, apportion them out among the associations comprised in that exchange.

This at first sight may seem a cumbersome method, and likely to cause delay in filling of orders, but the wonderful facilities provided by the telegraph and telephone companies lead to a large amount of all branches of business being carried out by this means. Every morning, every district exchange from all parts of California is in touch with head office in Los Angeles by telephone, all on a common switch or line, so that practically a meeting can be held without the attendance of the members in person.

The very large markets in the east, principally New York and Chicago, are auction markets.

To these markets, fruit which has not been sold f.o.b. or while in transit, is finally delivered and sold on its merits.

Some local associations handling the fruit or perhaps only three of four growers, and having something extra choice in the way of quality, almost invariably sent that to the auction markets, where it is eagerly sought after by buyers. This is where the individual brand, representing a high-grade article, scores once it has established its reputation.

The Lemon is a much more difficult proposition to handle, and requires a very large outlay of capital to provide suitable storage for the curing and holding of this crop. While they produce Lemons all the year round, their main crop comes at the beginning of winter, and has to be stored in normal years for from three to four months, and even up to six months.

MARGETSON
& CO. LTD.

Fruit Importers and Salesmen

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TASMANIAN AGENT
THE PORT CYGNET FRUITGROWERS' CO-OPERATIVE ASSOCIATION LTD.
CYGNET

When, however, it is necessary to store for such a long period, losses are heavy.

Instead of Lemons being handled at small district packing houses, Lemon growers have formed associations, and established houses in which all the Lemon growers joined up and established a packing house capable of handling as much as 30 to 40 car-loads per day—anything from 18,000 to 19,000 boxes per day.

During the months that I was in California, which was their winter period, Lemons were selling very freely at prices ranging from 5 dollars to 10 dollars per box on eastern markets. This was largly attributed to severe epidemics of influenza, and the severity of the winter in the eastern States. In connection with this it is interesting to note what can be done by advertising During the summer months Lemons are advertised for the delicious cool beverages, which can be made by their use. When winter comes around it is boosted for its hot-toddy advantages. While here, it is difficult to sell Lemons in the winter time, I believe it is solely due to the fact that the public is not told often enough that they should use them.

Advertising managers with whom I conversed told me it is only a matter of repeatedly telling the public that a thing is desirable to get them to believe that it is an absolute essential.

Grapes for Export.

Ohanez Strongly Recommended.

Messrs. Swann & Co., fruit importers, London, write, under date May 17, as follows:—

We notice on page 132 of your issue of April 2 that growers are being recommended to plant black grapes in lieu of Ohanez, on the grounds that black grapes are a more marketable proposition in the export markets.

Our experience of the British markets during the last sixty years is directly opposite to this.

Spanish black grapes from the Almeria districts described there as "Castizas" have not the keeping qualities of the Ohanez or Almeria grape, by which latter name it is now generally known. The black grapes mentioned usually arrive about three weeks or a month earlier than the white, and can be sold at a fair price during that period, provided the condition is satisfactory (which sometimes it is not), but the moment the white, or "legitimate," as they are termed, arrive, the black ones become practically unsaleable owing to the better flavor, more pleasing appearance, and keeping qualities of the whites.

The British consumer, at any rate, and we do not speak for others, much prefers the Ohanez, and will hardy look at any black variety if the two are on the market at the same time.

With regard to black Malaga grapes, it has been found that this variety will not even stand the short journey from Malaga to London, as it is a tender fruit. This grape is never shipped from Spain to these markets, and although it is shipped from Australia under refrigeration, it has to meet with a quick sale whatever may be the state of the market at time of arrival of steamer, because it must go into immediate consumption, for fear of its soon going rotten.

The market for Australasian grapes is steady, and sales have been effected at the following prices:—

Black Malaga, 20/- to 22/-; Cornichon, 16/-; Red Prince, 10/- to 12/- per box, usual packing.

TASMANIA

Export Notes. Packing Classes.
Seasonable Orchard Hints.
(By Our Correspondent.)

THE autumn of this year will be remembered as being one of the wettest on record. Heavy rains have been experienced all over the State during May and June, and immense damage has been done to roads, bridges, etc., by the floods, caused by the downpour.

Numbers of growers were caught with thousands of bushels of late fruit on the trees, which were spoilt by the wind and rain. In a few instances orchardists suffered from the loss of trees, through their being washed out of the ground, and quantities of surface soil were washed into main drains, roads, etc. The weather at present is improving, and all works which were suspended are in progress.

Overseas Fruit.—The general improvement in prices for fruit exported overseas will be welcomed by all branches of the industry. Although these only leave a small margin of profit, growers are hopeful that averages for the season may at least show a small balance over costs. A few more vessels have yet to arrive with their cargoes, and, from the reports received from London, the prospects, owing to the lateness of English small fruits, appear to be good.

From information received in early account sales, the overseas freight and charges, insurance, etc., together with river and rail freights in Tasmania, will total approximately 7/- per bushel. To this must be added about 1/9 for picking and packing, also the cost of growing the fruit, say, 2/9, as an average, making a total of 11/6, without interest rates, etc., before any profit is assured. It will be clear, from these figures, that, unless some big improvement is experienced in the late vessels' sales, only a small margin may be expected over the whole season.

British Empire Exhibition.—Public interest is now fully aroused in the exhibition, and the preliminary steps are being taken by all the primary industries to forward representative exhibits.

A sub-committee of the State Fruit Advisory Board, comprising Messrs. J. P. Piggott, M.H.A.; E. H. Thompson, and the State Fruit Expert (Mr. P. H. Thomas), have been appointed to arrange the details of the fresh fruit exhibit. At a recent meeting of the committee, recommendations were made to the Commission in regard to the nature of the Tasmanian exhibit, the supply and holding of fruit during the period of the exhibition, and the propaganda and literature for distribution. Consignments of the commercial fruit varieties will be drawn for this purpose from all the Tasmanian fruit districts.

National Fruit Council.—Advice is to hand that the Federal Government has recognised its responsibility in regard to this organisation, and will bear the expenses of delegates who attend meetings of the council, the States finding those of the Advisory Boards. There is no doubt that the organisation can be of real service to both Ministers and the respective branches of the industry.

Packing Classes.—These have been carried on by the Fruit Division of the Department of Agriculture this season in nineteen different centres, at each of which two or three separate classes have been held. The pupils have generally made good progress, and during the coming month tests will be given to the children able to take same, certificates being awarded to those proving competent. The total attendance at the classes will number over 300 pupils. Fruitgrowers are generally appreciative of the efforts of the officers of the Fruit Division in this direction, especially in view of the recent reduction that has taken place in the staff, and the necessity for holding the classes at longer intervals. Mr. W. C. Page (Packing Instructor) has carried on the instruction in the south, whilst the Assistant Fruit Expert (Mr. H. A. Turner) conducted the northern classes.

Insurance on Overseas Fruit.—As was anticipated by most practical growers that have been shipping fruit overseas for a number of years, the so-called disease (?), "brown heart," seems to have disappeared this season. According to the cabled reports to hand, the condition of the fruit on arrival appears to be generally satisfactory. However, the State Fruit Advisory Board intend to take action in any cases of deterioration that are considered due to neglect, and have instructed agents to lodge claims in all cases in which fruit is discharged in bad condition.

Fruitgrowers' Conferences. — The annual fruitgrowers' conferences will be held in Launceston and Hobart early in July, when the election of members to represent the industry on the Advisory Board will be held.

A number of important matters are down for discussion, chief among which will be overseas freights, Federal grading regulations, distribution of fruit on overseas markets.

Autumn Cultivation.—A number of growers with orchards situated on rising ground, who had autumn-ploughed and cultivated their areas, have reason to wish that their surface soil was in a different state during the last big rains. These orchards suffered severely from surface wash, losing great quantities of soil, and sometimes orchard trees, with the rush of the storm water.

In soils of light texture, where the contour is somewhat uneven, it is advisable to suspend working the surface after March, and either sow down with a cover crop, or allow as much weed growth to develop as possible, before the winter months and heavy rains are experienced. Besides being an economy of labor, other advantages are obtained. Such soils are naturally poor in organic matter, and the green cover will conserve and add to the supply of humus already present, whilst, if the soil is left open, it will become depleted. In addition, there will not be so much likelihood of "surface wash" occurring, the cover crop holding the soil against the action of heavy rains.

Orchard Notes.—Pruning should be now well in hand, and stone fruits completed. The use of a **travelling incinerator** is a quick and economical way of disposing of the prunings. This may be made fairly cheaply by mounting an old iron tank, such as is used for the export of merchandise, on a sledge, constructed with a metal framework. The top of the tank is left open, and a false grid bottom fitted, that will allow the ash to be distributed over the soil of the orchard.

Rabbit Injury.—In districts where rabbits are troublesome, care should be taken to frequently examine fences, and assure that no means of entry to the orchard is available. Injury to trees from this cause is more prevalent during the period of frosts. When these are in occurrence, it has often been reported that the rabbits have eaten the bark of the trees in preference to such green crops as rape, peas, etc. Smearing the barrels of the trees with strong animal greases, blood, or a mixture of lime and aloes, will often act as a deterrent until the vermin are eradicated.

Trees that have received wounds should be treated with grafting wax, covering the injured parts with a layer, so as to exclude air and promote healing.

P. BARRY PEAR.

Referring to the paragraph published in our February edition, one of our South Australian subscribers writes as follows:—

I have the P. Barry Pears growing and whilst not a very handsome looking fruit, they are a very delicious Pear when ripe. A splendid keeper and bearer, they also flower early with Keiffer, which is a good point.

God Almighty first planted a garden and indeed it is the purest of human pleasures; it is the greatest refreshment to the spirits of man.—Bacon.

N.S.W. Fruitgrowers' Annual Conference

Big Meeting at Goulburn.

Important Matters Discussed.

Another Conference of the New South Wales fruitgrowers has passed into history. The Goulburn Conference as recorded herewith was well attended and keen interest was displayed. The necessity for scientific investigation of serious fruit pests was earnestly advocated, and the need for organising the industry was stressed. The Executive, as such, will discontinue "pool" buying.

THE ANNUAL CONFERENCE of the New South Wales Fruitgrowers' Association was held at Goulburn at the end of May. There was a large attendance of delegates.

The President (Brig.-Gen. Heane), in his opening remarks, said that the State and Federal advisory councils were going to be of great value to the industry when they got into full working order, and he suggested that eventually apple and citrus fruit growers would each be allowed to nominate their own delegates to these councils, and that fruit agents would also be represented. He thought the formation of the **Central Citrus Association** was a further step forward. Good work was being done in regard to the disposal of by-products. As regards the experiments in **cool storage**, for citrus fruits, nothing had been done to satisfy the executive. He supposed that the work would be gone on with.

The formation of **co-operative packing shed companies** was proceeding satisfactorily, but there was still a lack of co-operation amongst fruitgrowers, and, until better methods were employed, and better men were entrusted with the work, there was no earthly chance of fruitgrowers making a good living.

Mr. McMahon, the association's delegate to the last meeting of the pomological committee, presented a very full report of the meeting, which was appreciated.

Finance.—A proposition was agreed to whereby the general secretary will carry on the service on a part-time basis, with the right to engage in other work that will not prejudice the interests of the association. The executive will, in future, dissociate itself from the pool-buying business, but the secretary may carry it on, on behalf of the branches, if necessary.

Registration of Fruit Agents.—Resolved:—

"That the Government be urged to pass into law the Fruit Agents' Registration Act, as submitted by the executive."

Barrow Licences.—Resolved (motion by Mr. Wilson, Wilberforce):—

"That the executive be instructed to approach the Sydney Municipal Council, and endeavor to have additional barrow licences issued; also that other municipalities and centres of large populations be advised to issue similar licences."

Fruit Fly.—Mr. W. D. Wrench moved:—

"That the Department be requested to continue carrying out experiments with fruit fly pests."

Mr. Neil (Glenorie) seconded the motion. Carried.

Brown Spot.—Speaking to a resolution by Mr. Neil (Glenorie)—

"That the Government be urged to further investigate brown and black spot, and other diseases, especially in regard to passion vines and citrus trees"—

Mr. Allen stated that no remedy had yet been discovered for successfully dealing with the diseases.

The resolution was carried.

A motion by Mr. Neil—

"That the Government be asked to offer an inducement, in the form of a bonus, to scientists and others who discover an effective remedy for coping with black spot and brown spot"—

was carried.

It was also resolved, on the motion of Mr. Nicholson (Glenorie)—

"That the Government be urged to have more scientific experiments made to discover a method of eradicating brown spot."

Mr. W. F. Brown (Hawkesbury River) moved:—

"That the use of baits for fruit-fly be made compulsory where the pest is known to exist."

The State Fruit Expert (Mr. Allen) said that the department had had very good results from both kerosene and baits.

It was agreed to leave the matter in the hands of the executive to make further inquiries, and, if necessary, to ask to have the use of baits made compulsory.

Quarantining Imported Trees.—On the motion of Mr. R. H. Taylor (Orangeville), it was agreed—

"To urge the Government to rigidly quarantine from importation, citrus fruits, trees and shrubs, owing to the danger of the introduction of citrus canker."

Deciduous Fruits.—Mr. Peacock (Bathurst) submitted a report of a separate meeting of deciduous-fruit growers, urging the formation of a separate association for growers of these fruits, the central association to be supported in the meantime.

Mr. Black (Leeton) cited the conditions existing on the Murrumbidgee Irrigation Areas, where members grew deciduous and citrus fruits both, as well as grapes. A peculiar position could thus be created on the irrigation area among the growers.

No action was taken.

Registration of Nurseries.—On the motion of Mrs. Piddington, seconded by Mr. Neil, it was agreed:—

"That the Government be approached to pass an Act for the registration of nurseries, and that nurseries should guarantee trees true to name and free from disease."

Co-operative Companies.—Mr. P. E. Wiltshire, manager of the Murrumbidgee Irrigation Area Co-operative Co. Ltd., addressed the conference, urging organisation and co-operation. In a few years' time the production of citrus on M.I.A. would be ten times the production of citrus in the whole of the State. Now was the time to organise. The areas were also largely interested in dried and canned fruits. Instances of successful co-operative enterprises in California and Australia were quoted.

Mr. J. W. Blick, manager of the Fruit Section of the Coastal Farmers' Co-operative Society, suggested a conference of all co-operative societies.

On the motion of Messrs. Neil (Glenorie) and Blowes (Orange), it was decided to request the executive to convene a conference of representatives of co-operative societies, to consider a basis of union, two representatives to attend from each co-operative society.

Next Conference.—It was decided to hold the next conference at Bathurst, in May.

Election of Officers.—Office-bearers were elected as follows:—

President: Brig.-General J. Heane, C.B., C.M.G., D.S.O.

Vice-Presidents: Mr. Bruce King (Hawkesbury River), Mr. H. S. Wark (White Rock).

Councillors: Messrs. Coulson (Packing Shed, Gosford), Nicolson (Glenorie), Wilson (Hawkesbury River), Case (Batlow), McMahon (Kurrajong) and Nancarrow (Orange).

Secretary: Col. E. E. Herrod, D.S.O.

PROPOSED ORCHARD REGISTRATION BILL.

MINISTER SYMPATHETIC, BUT MUST CONTROL FUNDS.

A deputation representing the principal fruitgrowing districts of N.S. Wales waited on the Minister for Agriculture (Mr. F. A. Chaffey, M.L.A.), on June 11, requesting legislation to enable orchardists to tax themselves along the lines of the N.Z. Act to benefit the industry.

Strong arguments were brought forward by General Heane, president of the Fruitgrowers' Association of N.S. Wales, Messrs. John Neil (Carlingford), R. H. Case (Batlow), T. R. Coulson (Gosford), A. J. Arnot (Batlow), F. A. Nicolson (Glenorie).

Mr. Chaffey, in reply said that he was taking the necessary steps to put the matter in the hands of the Parliamentary draughtsman. There was no doubt that an organisation was needed, to include growers, processors, and wholesalers, to look after marketing, but this must represent the whole of Australia.

Opposition would, he thought, be raised in Parliament to any proposition for taxing people which gave powers to use these funds to anyone outside the control of Parliament. The tax should be used definitely for the organisation of the industry, **but there must be Ministerial responsibility for the proper discharge of these duties.**

Edward Jacobs
& Sons,
Covent Garden Market
London (England)

Solicit
consignments of Australian Fruits

Tasmanian Representative:
W. D. Peacock & Co. Ltd.
PRINCES WHARF, HOBART
Shipping Number 418

Continuing, Mr. Chaffey said that he was going further than orchards, and intended to include the registration of stallions, and the use of the funds thus raised for the improvement of horse-breeding. "I propose to bring the bill forward as soon as Parliament will allow me to do it. I had already determined on this action previous to your last conference, but I am more than ever determined about it now, especially after the conference of Ministers of Agriculture in Melbourne."

Murrumbidgee Irrigation Areas.
Production of Apples.

Mr. F. A. Chaffey, M.L.A., Minister for Agriculture, who is also Chairman of the Water Conservation and Irrigation Commission, has forwarded some interesting photographs taken of Apple trees on Mr. Ziele's farm on the Murrumbidgee Irrigation Areas.

In regard to Mr. Ziele's block generally it might be noted that it is one of the heaviest on the Areas, the soil being more or less shallow clay loam with heavy clay sub-soil. Mr. Ziele has given the block excellent attention, and the mechanical texture of the soil has considerably improved under his management. It is interesting to know that Apples can be produced on this soil, the block being considered one of the hardest propositions on the Yanco Section of the Murrumbidgee Irrigation Areas.

The tree in photograph (1) is from eighteen to twenty feet high: planted 6½ years ago, and carrying from six to eight bushels of perfect fruit. The variety is Granny Smith.

Photograph No. 2 is a close view of some of the Apples on these trees, and photograph No. 3 shows the later plantation of the same variety made by Mr. Ziele 2½ years ago. The figure in the picture is Mr. Ziele himself. The growth of the trees can be estimated by the fact that he is about 5ft. 9ins. in height.

The Granny Smith has shown excellent keeping qualities on the Irrigation Areas without artificial aid, and reaches fine eating condition about July, and appears to hold over until September or October. In fact reports have been received of this Apple being held even longer.

Apples grown on Murrumbidgee Irrigation Areas, (N.S.W.).
see description in article on this page.

STATE FRUIT BOARD.

The State Advisory Board, with full attendance met on June 12, at the Department of Agriculture, General Heane presiding.

Finance.—The financial statement showed that of the £250 advanced by the State Government in October there remained a balance of £29 in hand at the end of May. It was decided to wait on the Minister for Agriculture and ask for a further advance to carry on until statutory means shall have been provided of financing the board.

Mr. E. J. Polkinghorne (Leeton) was appointed to represent the State on the executive committee of the Federal Fruit Council.

"Bunchy Top" in Bananas.—The banana growers' representative brought forward the matter of the bunchy-top disease, and while there was every confidence in the ready co-operation of the Department of Agriculture, it was resolved to ask the Minister to afford every possible assistance of the scientific staff to growers in the investigation of the disease and its control.

Developing Eastern Trade.

With regard to developing Trade with the East it was decided to request the Government to obtain fuller reports from the Trade Commissioner in the East.

Local Fruit Consumption.

Decided to wait upon the manager of railway refreshment rooms and ask for greater efforts to popularise fruit among railway travellers, by providing additional buying facilities similar to those introduced in Victoria.

Analyses of Arsenates of Lead.

Scientific Tests by S. Aust. Government.

During November and December, 1922, ten samples representing all of the brands of arsenates of lead procurable on the local market were purchased unofficially by this branch states Mr. Geo. Quinn, S.A., Government Horticultural Instructor, and submitted to the Department of Chemistry for analysis.

As will be seen from the appended report by the Director of Chemistry, these samples were chemically tested; firstly, for their respective total percentages of moisture, lead, water insoluble, arsenic, and water soluble arsenic; and further, on a dry basis for the three constituents last named.

The physical tests consisted of ascertaining the powers of each compound to hold in suspension when mixed with water in the proportions advised by the manufacturer on the container when the preparation is to be used as a spray to destroy newly-hatched codlin moth caterpillars. The suspension trials covered periods of 5, 15 and 30 minutes respectively. These were suggested to note how the compounds of the various makers compared when subjected to conditions of agitation—or lack of same—such as may be found under orchard conditions where pumps fitted with agitators of varying degrees of efficiency are in use.

From a study of the third table of Dr. Hargreaves' report, it will be noted how much more buoyant the particles are in samples numbered 2, 1 and 6, when compared with the remainder. Sample 9 displays a singular deficiency in buoyancy when permitted to stand unshaken for a longer period than five (5) minutes.

From the tables of chemical constituents the whole of these compounds would appear to be of reasonably even composition, and accepting American standards of risk, only one of these brands appears to approach the danger line to vegetation in its water soluble arsenic content.

REPORT BY DIRECTOR OF CHEMISTRY.

Eight samples of arsenate of lead, No. 1296, received on November 1, 1922, and two samples received on April 12, 1922, have been analysed, with the following results:—

ANALYSES OF THE SAMPLES AS RECEIVED.

No.	Brand	Moisture	Total Lead (PbO)	Total Arsenic (As_2O_5)	Water Soluble Arsenic (As_2O_5)
		%	%	%	%
1	"Aero" (powder), A. M. Bickford & Sons	0.16	62.5	31.55	0.09
2	"Elephant" (paste), Jaques Pty. Ltd.	44.1	34.9	18.1	0.11
3	"Blue Bell" (paste), Blyth's	44.9	34.2	17.1	0.11
4	"Green Cross" (powder), Kil-Tone	0.09	66.2	30.2	0.28
5	"Hemingway's" (paste)	36.6	39.0	20.7	0.48
6	"Swift's" (paste), Bowker Insecticide Co.	42.4	37.9	17.2	0.11
7	"Electro" (powder), Vreeland Chem. Co.	0.14	66.1	32.4	0.23
8	"Electro" (paste), Vreeland Chem. Co.	37.2	40.3	19.5	0.13
9	"Vallo" (powder)	0.38	64.7	30.1	0.14
10	"Vallo" (paste)	59.5	25.9	12.8	0.11

Results obtained on the moisture-free sample:—

No.	Total Lead (PbO)	Total Arsenic (As_2O_5)	Water Soluble Arsenic (As_2O_5)
	%	%	%
1	62.6	31.6	0.09
2	64.2	32.4	0.20
3	62.1	31.0	0.20
4	66.2	30.2	0.28
5	61.5	32.6	0.76
6	65.8	29.8	0.19
7	66.2	32.4	0.23
8	64.2	31.0	0.21
9	65.0	30.2	0.14
10	64.0	31.5	0.27

Suspension Tests.—The samples were mixed with water, in the proportions recommended by the manufacturers, for use in spraying trees to destroy codlin moth caterpillars. In cases in which the label specified a minimum and a maximum quantity, the mean of the two weights was taken for the test.

No.	Mean Weight Recommended for 100 galls.	Percentage Remaining in Suspension after Standing 5 Minutes	Percentage Remaining in Suspension after Standing 15 Minutes	Percentage Remaining in Suspension after Standing 30 Minutes
	lbs.	%	%	%
1 (powder)	3	33.6	27.9	17.9
2 (paste)	4½	52.4	43.0	36.7
3 (paste)	5	11.2	6.3	4.1
4 (powder)	2	24.0	10.0	3.6
5 (paste)	6	4.9	3.1	1.7
6 (paste)	4	36.4	28.0	16.6
7 (powder)	2	17.8	14.2	4.6
8 (paste)	4½	7.5	4.9	3.0
9 (powder)	2	31.2	13.2	6.8
10 (paste)	4	7.6	4.2	3.5

Cool Storage of Fruit.

Its Development and Importance.

Address given by J. H. Lang at the Australian Conference of Fruitgrowers.

THE APPLICATION OF ARTIFICIAL heat for the benefit and comfort of mankind dates back to pre-historic times, but it is only in the present generation that artificial cold has been used for practical and commercial purposes.

In the beginning of the seventeenth century Sir Francis Bacon wrote: "Heat and cold are nature's two hands whereby she chiefly worketh, and heat we have in readiness in respect of the fire, but for cold we must stay till it cometh."

One hundred years ago (1823) Faraday succeeded in condensing ammonia gas to a liquid by combining cold and pressure, thereby laying the foundation of the main means of refrigeration as we have it to-day.

The chief advantages derived from the cool storage of fruit are—

(a) Its preventing premature decay;
(b) It lengthens the period of consumption;
(c) It enables the owner to market his fruit at will. This is an advantage both to producer and consumer, as it prevents great fluctuations in price during the year.
(d It makes transport in good condition possible for long distances. The fruit trade of the world could not exist without it.

The natural causes of cold are—

(a) The absence of the sun, as by night or in winter;
(b) The diminution of the atmosphere as in high elevations;
(c) Evaporation;
(d) Radiation.

The two latter are fixed in artificial cool storage.

* * *

SYSTEMS OF REFRIGERATION.

THE COMPRESSION SYSTEM is now almost universally used for fruit storage. A gas when compressed becomes condensed and loses its heat, when the pressure is removed it evaporates and absorbs heat from surrounding objects.

Anhydrous Ammonia is chiefly used for land storage; some vessels use $C.O.^2$ which machine has the advantage of being smaller, but as a higher pressure is necessary, the apparatus must be stronger and heavier.

The heating of the barrel of the pump when blowing up a motor or bicycle tyre is a good example of heat generated under pressure.

The cycle of operations in the compressor system is, the ammonia or other agent is subjected to pressure so that when it passes into the condensing coils its temperature is reduced and it becomes liquid. Water flowing over the coils carries away the heat produced by the compression, also the latent heat set free by the liquefication.

The liquefied gas is then admitted in to a series of coils; pressure being relieved it again becomes a gas and must take up a quantity of heat equal to that given up to the cooling water.

This set of coils may be arranged within the fruit chamber, and is called the *direct expansion system;* or air may be forced through the coils and then admitted to the fruit chambers as in the *air circulation system.*

Much discussion has taken place over the relative merits of these two systems for fruit storage, but after all it is the result and not the cause that is of primary importance, and an equitable temperature can be maintained under either system.

In first cost the

direct expansion system

is more economical for small stores, but for stores over 10,000 cases, the air circulation system has the advantage.

It is difficult to give a reliable estimate as to the cost of building and equipping a store, as local conditions as to labour and price of material vary; as a general rule, it may be stated that the cost will be about 10/- per case capacity. A store of 4,000 case capacity was recently built in Victoria for £1,500.

The power required may be supplied by steam, internal combustion (suction gas or kerosene) engine or electric motor. A 65 b.h.p. engine requires 43 lbs. coke or 52 lbs. charcoal or 40 electric units per hour; a 150 h.p. quick revolution steam engine consumes half a ton of wood per hour.

As a rough guide it may be taken that 3 h.p. and 1 ton compression are required for every 2,000 case capacity of the store. It is always better to

have surplus power

and compression, as the extra initial outlay is more than counter-balanced by the reduced running time to get the same results.

The usual temperature for fruit storage is 30 deg. Fahr.

As the fruit is going in the temperature will rise according to the heat of the fruit and the amount being stored, but it should not be allowed to rise above 34 deg. or 35 deg. When the chamber is full the variation should not exceed 2 deg. It is the temperature of the air that is taken and that fluctuates more than that of the fruit.

The humidity and amount of carbonic acid gas in the air are also of importance, though little has been done hitherto towards their control. A small percentage of carbonic acid gas is advantageous in retarding respiration of the fruit, but an excess is injurious. If the air be too dry it will cause the fruit to shrivel.

Much loss may be caused in cool stored fruit by scald; we have yet much to learn about this disease, but it is more prevalent in immature fruit than in that fruit that has been allowed to fully develop before storage. Some varieties, especially green ones, such as Stewarts, Stone P., London P., are less susceptible to scald if kept out of cool storage for two or three weeks after being picked.

This delayed storage may shorten the theoretical life of the fruit in storage, but it does not adversely affect its practical commercial life.

Stacking.

There is a difference of opinion among growers as to the stacking of the fruit in the chambers. Some maintain that provided the fruit is thoroughly cooled, it can be stacked closely, and the maximum number placed in the space; the experience of many seem to justify this, though in some instances close packing has proved disastrous.

A free circulation of air is more important for Pears than for Apples.

Fruit in ripening generates heat, and unless this heat is removed it hastens the ripening process. Investigation has shown that the difference in temperature between air and fruit may be taken as a guide as to when the fruit is reaching the limit of its storage life. This difference is too slight, however, for practical purposes.

There yet remains much to learn regarding cool storage of fruit, and the seasonal variation of fruit, even from the same trees, make the compiling of accurate data exceedingly difficult, but the close co-operation of scientist and grower will lead to the solution of many of the difficulties that at present confront us.

NITROGEN FOR ORANGES.

Just at the present there is on the South Australian Government Experimental Orchard at Berri an outstanding illustration of the necessity for applying nitrogenous fertilisers to Orange trees. There is a patch of extremely pale, anemic-looking Washington Navel Oranges, with fruit thin in the skin but pale on the surface. Adjoining this patch is a plot which has been treated with sulphate of ammonia, and the trees are of a rich green colour, and carrying a splendid crop of deep orange-coloured fruits. The skin of the latter is certainly slightly thicker in texture than that of the former, but the general healthy appearance is a striking indication of the fact that Oranges growing under these conditions need nitrogenous fertilisers.—South Australian "Journal of Agriculture."

Abbreviations for Apple and Pear varieties.

Following are the abbreviations of the names of varieties of commercial fruits, for branding purposes, exported to either overseas or interstate markets, as recommended by the Pomological Committee of Australia, 1923:—

1. With short names, such as Fanny, Rymer, Dunns, Tasma, Yates, Howell, and others, it is optional to use either the abbreviations or the full name.

2. Initial letter of letters to be in capitals, other letters to be small.

3. The stroke sign / denotes "of" or "de."

4. Apples to be branded in black; Pears in red, or in white if Jarrah cases are used.

Apples.

Alfriston (A l f); Adam's Pearmain (A P m); Allington (A l n); Alexander (A l x); Aromatic (A r o).

Bismarck (B m k); Ben Davis (B D s); Buncombe (B c m).

Commerce (C o m); Crow's Egg (C E g); Cleopatra (C l e o); Cox's Orange Pippin (C.O.P.); Crofton (C f n).

Delicious (D e l); Dougherty (D h t y); Duke of Clarence (D / C); Dunn's (Dunns); Dumelow (Wellington) Pippin (D m l).

Fameuse (Lady in Snow) Pomme de Neige (F a m); Fanny (F n y); Foster (F o s); French Crab (F C b).

Granny Smith (G r S); Gravenstein (G r a v).

Hoover (H v r).

Jonathan (J o n).

King David (K D v); King of Pippins (K / P).

Lord Suffield (L S d); London Pippin (L P n); Lord Wolseley (L W y).

McIntosh Red (McI R); Mobb's Codlin (Mob C).

Nickajack (N j k); Newtown Pippin (N P n).

Perfection (P f n); Prince Alfred (P A d).

Ranelagh (R an); Reinnette de Canada (R / C); Ribston Pippin (R P n); Rokewood (R k d); Rome Beauty (R B y); Rymer (Rymer).

Spitzenburg (S p t z); Scarlet Pearmain (S P m); Sturmer Pippin (St P); Scarlet Nonpareil (S N p); Senator (S e n); Stone Pippin (Stone P); Strawberry Pippin (Winter Strawberry) (Str Pn); Statesman (S t m n); Stayman (Stayman Winesap) (S t y w). Tasman's Pride (Tas P); Tasma (Tasma).

Worcester Pearmain (W P m).

Yates (Yates).

Pears.

Beurre Bosc (B Bosc); Beurre Clairgeau (B C g u); Beurre de'Anjou (B / A); Beurre de'Capiaumont (B/Cap); Beurre Diel (B Diel); Beurre Easter (B East); Beurre Hardy (B Hdy); Beurre Superfin (B Sfn); Black Achan (B Ach); Broompark (B P k).

Clapp's Favourite (Clp F); Conference (Conf).

Doyenne du Comice (D / C); Duchesse d'Angoulême (D / A).

Gansel's Bergamot (Gan B); Giblin (G b n); Glou Morceau (G l M).

Howell (H w l).

Josephine de Malines (Jos / M).

Keiffer (K f r).

Madame Cole (M Cole); Marie Louise (M L).

Packham's Triumph (P k T).

Vicar of Winkfield (Napoleon) (V / W).

Williams (W B C); Winter Cole (W Cole); Winter Nelis (W Nelis).

POLLINATION OF FRUIT BLOSSOMS.

The importance of cross pollination as a factor in fruit production is now generally accepted states the N.S.W. Department of Agriculture, which has prepared a Bulletin (No. 1966) on this subject. Writing under date May 31st., to the "Fruit World" in answer to an enquiry, Mr. Geo Valder, Under Secretary and Director of Agriculture states:—"This Department's Experiment orchards are not suitable for obtaining data as to the best varieties to serve as cross pollination for others because of the large number of varieties they carry, and hence the impossibility to detect which is serving to cross pollinate or whether cross pollination is necessary.

"From observations made in the various orchards, this Department has no hesitation in advocating for provision to be made for cross pollination when planting all kinds of deciduous fruits, as even when it is not necessary, the varieties are planted in pairs of rows, they cause no more trouble in picking, spraying or cultural operations than if planted in blocks.

"It has also been observed that varieties may be self fertile in one locality and self sterile in another. For instance the Kieffer Pear is generally accepted as self sterile, and its non-bearing habit has been found when isolated to be corrected by providing cross pollination with Le Conte, yet in the Capertee district a large bed of this Pear is cropping without pollination.

"Again varieties may be self fertile one season and self sterile another.

"Almonds are generally self sterile, and instances of failure to crop when one variety is planted by itself have been noted over and over again. At the Wagga Experiment Farm Orchard Brandes Jordan planted alternately with Paper Shell in a long breakwind, cropped satisfactorily though there is a very distinct difference in the periods of blossoming of these two varieties.

The following are the blossoming dates of nine varieties of Almonds at Yanco:—

August 3rd.—Early Paper Shell, Large Paper Shell, Riverside Peerless.

August 9th.—Brandes Jordan, Golden State, I.X.L., Ne plus ultra, Nonpariel, Hatch's Nonpariel.

"There are indications that the I.X.L. variety of Almond is self fertile in this Department's Yanco Experiment Orchard.

"The Morello Cherry has shown to be suitable to cross pollenise the Noble and Werders Early Black pollenises the Bigarreau Mozel in the Bathurst Experiment Orchard.

"In the Young district Napoleon is effective in cross pollenising St. Margaret, and though the Florence is rather later in blossoming than Lyons, it is useful in cross pollenising the latter variety.

"Though the President Plum is a noted heavy cropper, there is evidence that in some districts it needs cross pollination and in the Bathurst district Giant and Grand Duke have been found satisfactory for this purpose.

"The cropping of Robe de Sergeant is improved and more regular in some districts when given opportunities of cross pollination. The following have been found satisfactory varieties for this purpose:—Giant, Angelina Burdette and Prune D'Agen. Prune D'Agen is generally considered self fertile, but as has already been stated, self fertility or sterility varies in districts and even from season to season and it is advisable to provide for cross pollination in planting all varieties.

"In our Coastal Districts there are evidences that the Japanese varieties, Wickson and Shiro require cross pollination and that they satisfactorily inter cross pollinate. Burbank is also useful to cross pollinate the two former.

"Satsuma" seems in most cases, self fertile."

Answers to Queries.

Pear Trees not Setting.—S. G. Shepparton (Vic.), writes—"I have a block of very large 9-year old Winter Nelis Pear Trees. These trees flower very heavily each year, but do not set any fruit. Could some of your readers advise me what to do in this connection?"

Answer, by W. Lipscombe, Croydon, Vic.—There is no doubt the cause of the Winter Nelis Pears not setting is due to the super-abundance of fruit spurs; this variety of Pear makes more fruit buds than the tree is capable of setting, therefore it is absolutely necessary to thin out the fruit spurs very considerably. If this is done thoroughly S.G. will find the fruit will set all right.

If the trees are making over abundance of wood it would be as well not to cut them back hard. The reason of Pears not setting when there is too much blossom is that there is not a full flow of sap until the leaves are formed to complete the full circulation; therefore, if too many flower buds are left on the tree there is not sufficient stored up sap to set the fruit.

Grafting Apples on to Pear Trees.

V. C., (Mundaring, W.A.) asks if any of our readers have had experience with the grafting of Apples on to Pear trees. Has it been successful from a commercial point of view?

Answer (by J. H. Lang, Harcourt, Vic.)—Though Apples may be grafted on to Pear trees it is not a commercial proposition. If V. C. desires to change an orchard from Pears to Apples it would be much better to inter-plant the Apple trees with the Pears, removing the latter when the Apple trees require all the space.

Best Pear Varieties.—"R.E.O." (Bayswater) Vic., writes:—"Could you tell me in order of merit the five most profitable varieties of Pears to grow suitable both for the Melbourne and Sydney markets, also the order in which the rows should be planted so that the varieties would pollenise one another?"

Answer (by A. F. Thiele, Doncaster, Vic,).—These are the Pears I would recommend for our district, though in some districts others may do just as well (1) Beurre Bosc, (2) Williams B.C., (3) Josephine De Malines, (4) Winter Nelis, (5) Packhams Triumph, (6) Howell.

I would plant them in rows of four of one variety in the order in which I numbered them.

Answer by F. W. Vear, Burwood, Vic.

Beurre Bosc, Williams Bon Chretien, Packhams Triumph, Kieffers Hybrid, Howell.

To Pollenise.

Beurre Bosc will look after itself if only pruned lightly, plant freely.

Plant 3 rows Williams Bon Chretien then 2 rows Packhams Triumph, 3 rows Howell and 3 rows Kieffer.

Does Bordeaux Russet Apples.—"Barossa," S.A., asks:—"Please let me know whether spraying apples with Bordeaux when they are commencing to bloom is likely to cause russetting of the fruit."

Answer (by Geo. Quinn, S.A. Govt. Horticultural Instructor).—I have no evidence, gained from properly prepared experiments, conducted for several years, which indicates that Bordeaux spraying will russet apples which are at such an embryo stage as they are when the flower buds are just beginning to show the pink of the petals.

Peaches for Canning.—"Barossa," S.A., :—"Are the following peaches suitable for canning—Eureka and Late Italian Cling? These varieties have, during the last few years, been planted or budded on freestones extensively in this district."

Answer (by Geo. Quinn, S.A. Govt. Horticultural Instructor). — Eureka and Late Italian Clingstone peaches have been planted for canning purposes, but, owing to the presence of red coloring in the pulp around the stone, they are not suited to the overseas trade. The last-named is confused with Late Riverside Cling, which is a different peach, but, excepting that it extends the canning season, has no good qualities to commend it. Your correspondent would meet the wishes of the canners by working such kinds as Phillip's Cling, Golden Queen, Goodman's Choice, Sims' Cling, and possibly Levis.

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Planting Deciduous Trees.

Practical and Seasonable Notes.

The importance of the early planting (June) of deciduous trees is emphasised by Mr. H. N. Wicks, nurseryman and fruitgrower, of Balhannah, South Australia, in his interesting "Planter's Guide." He then continues, "It sometimes occurs that, owing to unavoidable circumstances, planting may be delayed, and although the planter is very anxious not to lose a year, he is compelled to do so, owing to the fact that the trees become too far advanced to be transplanted with safety. In these circumstances, trees can be lifted in winter and placed in cold storage before they start into growth.

Trees from the Nursery.

Upon receipt of your trees from the nursery, moisten the roots, but do not leave the trees standing in water. If they are all to be planted within a few days, keep the roots covered with damp bagging, straw, or some similar substance, and keep them in a sheltered place away from winds.

Plunging or Heeling in.

If the trees cannot be planted for some little time, place them in an upright position in a shallow trench about 2ft. wide and 6 to 9in. deep, and then shake loose earth in amongst the roots, completely covering them with moist soil. Firm them a little, and be sure the soil is kept moist.

In this manner it is possible to plunge hundreds of trees in a few feet of ground, and they will be quite all right for a long period during winter, and by employing this practice, the planter has his trees handy, and can make the best use of every opportunity he has for planting.

This is termed plunging or heeling in, and is the usual practice of nurserymen when assembling orders, and I feel sure that if planters would take early delivery of their trees and employ this method of holding them, they would find that a great deal of the worry and trouble of planting would be eliminated, because of the absence of the need to rush the matter through.

Preparation for Planting.

Previous to planting, the soil should be **thoroughly broken up as deeply as possible.** Subsoil ploughing is to be highly recommended.

The ground cannot be worked too much prior to planting, and a year's fallowing, although not essential, is very beneficial.

If the soil is well and deeply tilled, as it should be, it is not necessary to take out a larger hole for planting the tree than the size of the roots demand. Mr. G. C. Roeding, one of California's most prominent nurserymen and fruitgrowers, states, with regard to this matter:—"Nothing is so beneficial as subsoiling, though planters are often disposed to avoid this additional expense, but where time and condi-

tions will permit, it will do more to promote a fine deep root system and an unusually heavy growth than any other one thing that can be done in the preparation of the soil."

Planting.

To plant the tree, break up the bottom of the hole as deeply as possible and leave the soil a little higher in the centre.

Shorten back the roots before planting, taking care to remove with a sharp knife or seccateurs all bruised portions.

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Ridley, Houlding & Co.,
Large Receivers of Australian Fruits.
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Mix two or three good double handfuls of bonedust in with the soil as it is filled in, making sure that it is well stirred through the loose earth.

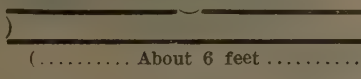
There are several methods of marking off the land to be planted. If the ground is very flat, with no undulations, a chain or wire marked off with the distances the trees are to be apart can be employed satisfactorily, after determining three of the boundaries, which must be proved to be at right angles to one another.

After marking the two opposite boundaries with pegs at each spot where a tree is to stand, a start can then be made from the third boundary which forms the base, and by stretching the chain between the pegs on the two opposite boundaries, the trees can be placed at the marked spots on the chain or wire.

If the ground is at all uneven, this method, of course, would be unsuitable, and the exact locality for each tree must then be marked with a peg, and then, by the use of a planting board and two small pegs, the trees can be placed on the exact spots where the pegs have stood.

The planting board is as illustrated below, and the centre notch is placed around the peg where the tree is to stand. Then place the two small pegs in the notches in the ends of the board. Remove the centre peg and the board, and prepare the hole for the tree.

The board is then replaced between the two small pegs, and the tree placed with the stem in the centre notch, and the earth filled in with the tree in that position.



Firm the tree in gently by starting on the outside of the hole and working into the centre toward the stem of the tree.

The tree should be planted so that the former earth line is about on a level with the surface of the ground. This earth line is easily discernible on the tree by the color of the bark.

When finishing, the earth should be heaped around the tree trunk about an inch or so higher than the ground level, and should slope from there to the ground level at the edge of the hole.

This, for two reasons: The filled in earth will sink a little after planting.

It is very inadvisable to have the surface immediately surrounding the tree in the form of a basin, and so collect the surplus water around the tree stem, allowing the filled in soil to become sodden.

TABLE.

Showing the Number of Plants required to plant an acre of land from 1 foot to 30 feet from plant to plant, employing the square method of planting.

Distance. Feet.	No. per Acre.	Distance. Feet.	No. per Acre.
30	48	9	537
28	55	8	680
26	64	7	889
24	75	6½	1,031
22	90	6	1,201
20	100	5½	1,440
19	120	5	1,742
18	134	4½	2.151
17	150	4	2,722
16	169	3½	3,556
15	193	3	4,840
14	222	2½	6,970
13	257	2	10,890
12	302	1½	19,360
11	360	1	43,560
10	435		

Cultivation.

Remember the first few years are most important to the young trees, and cultivation is the keynote to successful growth.

It is bad business for the grower to neglect trees after having invested his money in them, and is also a poor advertisement for the nurseryman.

The planted area should be thoroughly tilled throughout the summer months, and especially should a good mulch of loose earth be kept around the stems of the trees.

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3, 4 & 5 The Arcade, Borough Market, London, S.E. 1. Tel. Hop 3373. Telegrams, "Borocost, London."
G.N.R. Potato Market, King's Cross, N.1. Telegrams, "Kincrocost, London."
3-5 Pudding Lane, Monument, London, E.C. 3. Tel. Avenue 7990. Telegrams, "Fruits, London."
18 Stanley Street, Liverpool. Tel. Central 888. Telegrams, "Geracost, Liverpool."
Southampton Docks (Facing No. 45 shed), Tel. Southampton 2207. Telegrams, "Geracost, Southampton."
American Branch, 202-4 Franklin Street, New York. Cables,"Geracost, New York"

Pruning.

As soon after planting as possible the young trees should be pruned, cutting out the centres to give an open tree, leaving four or five leaders, and cutting these back to within a few inches of the stem, and cutting to an outside eye in every instance. It is bad practice to prune trees prior to planting, as there is grave danger of damaging the terminal eyes on the leaders, which results in a crooked start for the injured limb.

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Selling "Off Side" Oranges and Lemons

Californian Advertising Methods.

Interesting Suggestions of Value to Australians.

A NEW DEPARTURE in fruit merchandising is being carried on by the Californian Fruit Growers' Exchange.

This new departure is the creation of a demand for "off-size" citrus fruit which has long been a drug on the market.

This campaign is to introduce to the fountain, hotel and bakery trade of the country the new Sunkist juice extractor, which makes lemonade while you wait and turns a box of oranges into juice in a rapid and efficient manner.

Markets for Oranges and Lemons.

This is of vital interest, since it opens up a practically untouched market for two of his staple all-year-round fruits—the Orange and Lemon. Although the first year of this campaign is not yet completed, the Sunkist juice extractor has proven that it fills a real need on the part of the soda fountain trade.

In fact, demand for the extractor has been so strong that the sales quota of 5,000 machines set for the year was passed before the end of the first nine months, and the Exchange reported on September 30, that more than 5,100 of these machines had been sold and delivered.

Of these, 49 percent were sold personally by the extractor sales organization; 16 per cent. direct by mail as a result of extractor advertising, and 35 per cent. through fountain trade jobs.

The "Why" of Off-Size Fruit

Mrs. Housewife, when she buys Oranges, asks for medium-sized fruit. For some reason she believes such fruit to be better than the smaller or very large grades, although Mother Nature puts the same quality of juice into small, medium and large Oranges.

The problem of marketing "off-size" fruit has been one for which the California citrus growers have long sought a solution. The possibility of co-operating with the soda fountain industry to give the public real Orangeades and Lemonades early presented itself as a natural answer, but also presented a number of difficulties in its operation.

An investigation of the soda fountain trade showed that while a demand for real Orangeade and Lemonade existed, this was not being cultivated, because of the trouble and time consumed in making a drink from fruit that had to be squeezed by hand in a most unsanitary and unappetizing manner.

But that a demand for these drinks existed seemed to be proved by the popularity of artificial Orange and Lemon drinks, though these lacked the health and dietetic value of real Orangeade and Lemonade.

Fruit Juice Extractor.

These difficulties were overcome with the discovery by the Exchange of a fruit juice extractor made by the Blessing Manufacturing Company. This machine seemed to have in it possibilities of development, which, with changes and improvements made from time to time, have brought it to the present perfected condition.

For several years the Exchange co-operated with the Blessing Company in its sales campaigns to place this extractor on the market. Then it was decided to go into this field even more strongly, and the Exchange purchased the Blessing Company.

In operating, the halved fruit is held against a revolving extracting bulb inside the bowl. The bulb is run by an eight-horse power electric motor and makes 2,000 revolutions a minute. It not only extracts the juice of the fruit, but it breaks up the fruit pulp, so that in drinking Orange and Lemon juice the "Sunkist" way the consumer secures the full value of the fruit.

With the taking over of the Blessing Company by the Exchange, the Blessing fruit juice extractor became the "Sunkist" extractor, and the price, which had been about £25/10/-, was reduced to £9/10/-.

The Exchange does not attempt to make a profit on the extractor, but expects by introducing the machine to the soda fountain to help build an outlet for the Oranges and Lemons of future years.

Insuring the Market of Future Years.

Towards this outlet it intends, by an educational campaign, to direct the off-size fruit. This off-size fruit sells at bargain prices as compared to the medium sizes which the housewife demands. So the advertising broadside which sells the soda fountain owner a Sunkist extractor also tells him how to buy fruit, and the Exchange agent who sells him fruit tells him the same story.

Each sale of a machine is listed and follow-up dealer service work is done by the nearest Exchange agent, who tells his jobbers of this sale and suggests that they call upon the new extractor owner and get him interested in the proper methods of buying fruit.

New Department Formed.

To handle the distribution of the extractor, a Department of Fresh Fruit Drinks was organized, with headquarters at Chicago, and an extensive sales campaign planned for the first year This included the sending out of broadsides in a direct-by-mail campaign; an advertising campaign in the fountain trade papers, the sale of the machine through fountain jobbers and through an extractor sales organization comprising some fifteen experienced salesmen working to place the extractors in so-called key positions.

One double-spread advertisement was run in the Saturday Evening Post last spring, which called the attention of the consumer to real Lemonade and Orange juice. Tied up with this was a demonstration of the advantages of the machine to the fountain owner.

Extensive Advertising Campaign

In planning the advertising and sales campaign for the extractors, every effort has been made to aid the fountain owner who buys one of these machines to build consumer trade. Following the lead of the Saturday Evening Post double-spread advertisement mentioned above, it is planned to add to a number of the national advertisements or Sunkist fruits in the coming season's schedule a small cut of the extractor. With this cut there will be a notice calling the consumer's attention to the fact that such a machine on the fountain counter is a guarantee of real Orange and Lemon juice drinks.

—"Signs of the Times."

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We are the largest receivers of Green Fruit from Australia, our consignments having steadily increased annually since our business was established in London in 1902. Our Managing Director has had the handling of consignments to the markets of Great Britain and Europe since 1900, and personally supervises the sale of all fruit consigned to the Company. Fruit is placed for sale in whatever markets or way (auction or private) appear most suitable, thus getting it before all classes of buyers; our increasing consignments demonstrate the success of this practice.

F. W. J. MOORE, Managing Director

Telegrams: Tirralirra London

Bankers: Bank of New South Wales

"Mother," asked young hopeful, as a visitor had just taken his seat at the table, "is this roast beef?"

"Yes, dear, this is roast beef. Why?"

"Dad said he was bringing home a mutton head."

Seasonable Spraying Notes.

Hints for July.

Mr. C. French, Junr., Government Entomologist for Victoria, states that attention given now to combating serious orchard pests will help to keep same in check, and reduce the extent of the visitation later.

Here are some seasonable notes for July:—

Fruit-rooms, Packing Sheds, etc.—When apples and other fruits are being packed in sheds, etc., the larvae of codlin moths often pupate in the crevices of the room. When the warm weather arrives, the moths emerge, and make their way to the orchard. Orchards are often badly affected from this source. Such fruit-rooms, etc., should be fitted with wire windows, and subsequently filled with kerosene so that, when the moths emerge later, they will be unable to escape. Shallow trays should be fitted near the windows, so that the moths will fall therein when attracted by the light, and are attempting to fly out of the windows.

Codlin Moth.—Scrape off any loose bark from apple and pear trees. This will destroy the chrysalis and hibernating larvae. Remove old bands, and burn same, or dip in boiling water.

Caterpillars.—Keep a lookout for the caterpillars of light-brown apple moth and painted apple moth. These caterpillars are found practically all the year round on fruit trees, and are particularly destructive to young fruit spurs.

Woolly Aphis.—Recent experiments with nicotine sulphate has given excellent results against these insects. Spraying against woolly aphis at the present time is advised.

For woolly aphis in soil, use manurial insecticide. This is worked into the soil. It causes a gas to generate, which is fatal to insect life. It also acts as a manure to the trees.

San Jose, Mussel, or Other Scale Insects.—Before pruning, spray apple and other fruit trees with red oil, miscible oil, or lime sulphur.

Burn all prunings.

Bryobia Mites and Red Spider.—The lime sulphur or oil sprays used against scale insects will destroy the eggs of these pests.

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Reference: Satisfied growers in all states.

Victoria

Victorian Fruit Growers' Central Association.

Monthly Executive Meeting.

THE Monthly meeting of the Executive of the Victorian Fruitgrowers' Central Association was held at Melbourne on June 20. This was the first meeting of the new executive elected at the recent Frankston Conference.

There were present.—Mr. V. R. McNab, President, (in the Chair), Messrs. Aird, Mock, James, Foster, Mair, Grant, Thiele, Vear, Tully, Bailey and Hatfield.

Messrs. Turnbull (Ardmona) and Hedditch (Gorae) were also present.

Apology received from Mr. J. H. Lang.

Judges at Shows.—Letter received from Royal Agricultural Society re Judges for fruit exhibits at Annual Show. On the motion of Messrs. Tully and Mock, Messrs. Aird, Vear and Thiele were appointed to draw up a list of Judges for Fruit Shows generally, for submission to next meeting, a certain number of young growers to be included.

Labour conditions.—Letter received from Employers' Federation, embodying the following proposal from the State Labour Department:

"That a delegation consisting of representatives of Labour and Employers, and possibly accompanied by a senior officer of the State Labour Department, be sent to America to look into and report on their return upon conditions of employment, length of hours worked, and method of payment for piece work, etc."

Resolved on the motion of Messrs. Tully and Vear that such proposal receive the support of the Association.

Rural Defence Fund.—Letters received from Doncaster Association and Mr. J. H. Lang. On the motion of Messrs. Tully and James the following motion was carried, viz., "That this Executive is of the opinion that the expenses of present arbitration case should be met from such fund, and strongly recommends that steps be taken to liquidate such fund by allocating same equitably amongst the bodies interested. The President, Messrs. Aird and Mock, and the Secretary were appointed to take action in the matter.

H. M.
WADE
& Co.
FRUIT MERCHANTS
Prompt advices of sales
Cheques Weekly
435 FLINDERS LANE
MELBOURNE
Corner of William Street,
Opposite Western Market

FRUIT TREES
One or One Million Supplied
W. G. GRAY
Allwood Nurseries,
Hurstbridge,
Vic.
Write for Catalogue
Post Free

Fruit on Railway Station—A letter was received from Mr. J. H. Lang suggesting that the Commissioners be asked that fruit barrows and stalls be allowed on Flinders and Spencer Streets platforms, and the President, Secretary and Mr. Foster were appointed to act in the matter.

[*Note.*—The sub-Committee waited on Mr. Harris, superintendent of Refreshment Rooms, and learnt from him that barrows are already on Spencer Street platforms, and that stalls and attractive show cases are in course of completion at Spencer Street, Flinders Street, Princes Bridge and several country stations for the display and sale of fresh, canned and dried fruits by the Department.]

Orchard Tax.—Letter received from Acting-Premier, stating that the question of an Orchard Tax was discussed by the Cabinet, but that Ministers were not satisfied that there is unanimity amongst fruitgrowers respecting the imposition of such a tax, and they do not regard compulsion as desirable in this matter.

Superintendent of Horticulture.—Satisfaction was expressed that the Ministry is taking further action in the matter of an appointment, and the following resolution was carried, viz., That in the opinion of this Association the appointment should be made within Australia from amongst applicants having a knowledge of Australian conditions ruling in the Horticultural Industry, and that such resolutions be passed on to the Assistant Minister for Agriculture.

Pear Shipments.—On the motion of Messrs. Tully and Thiele it was resolved that this Association through the Exporters' Handling Committee draws attention of Ship-owners to the unsatisfactory conditions under which William's Bon Chretien Pears were carried during the past season, and suggests an enquiry be made into the reason for the uneven manner in which such Pears were delivered.

MELBOURNE WHOLESALE FRUIT TRADE.

Presentation to Mr. Wade.

A complimentary dinner and social function was tendered by members of the Wholesale Fruit Merchants' Association to their president, Mr. H. M. Wade, during June. Mr. J. H. Young, who presided, said that wholesale distributors were out to render the best servce possible to growers. Their interests were identical. Appreciative references to Mr. Wade's zeal and ability were made by Messrs. Davis (vice-president), Lucas (W. Sweeney, Parkinson and Parnham.

Captain Fisher, Melbourne representative of the Queensland Fruitgrowers' Co-operative Society, in supporting the toast, said that growers and agents had much in common, and their interests were not antagonistic, as some supposed. Many growers were not conversant with the conditions under which fruit was sold. A better understanding could be brought about by mutual conferences.

Mr. Wade was presented with a wallet of notes and a framed enlargement of the recent flashlight photo, taken at the dinner tendered by the trade to the Australian Conference of Fruitgrowers.

Responding, he said that the Wholesale Fruit Merchants' Association had won the respect of growers by securing important advantages, such as the payment of claims, more punctual running of trains, and better deliveries, and in other ways.

The health of Mr. T. Stott was honored, at the instance of Mr. Sweeney. The toast of "The Press," proposed by Mr. Wilson (Woolf & Co.), was favorably received.

Ardmona

As a result of the Railways Commissioners' "Eat More Fruit" campaign, a very large quantity of single-case lots of fruit have been handled on country lines.

At Mooroopna (Vic.), in the Goulburn Valley district (Mooroopna is the railway station for the Ardmona district), the number of single cases of fruit despatched far exceeded the total of any previous year.

The year 1922-23 was a record for fruit in the Ardmona and Mooroopna district, which produces peaches, apricots and pears in very large quantities. During that year 440,155 cases were despatched, as against 392,752 cases for the previous year. This represented an increase in tonnage of 18 1-3 per cent.

Of the 1047 trucks loaded with fruit during the year, 420 were sent to Sydney, and 627 to Melbourne.

The Railway Department worked in harmony with the growers in handling these big consignments.

Arbitration Case

(*Continued from page 239*)

the grower for those apples received a debit note? Generalities are confusing and dangerous, and may lead to wrong conclusions.

The many other points in the opinions expressed by the Judge will be keenly discussed by growers. Dealing in a judicial capacity with so many different industries, it would be beyond the power of any individual man to grasp the essential details of all. However, the attempt is being made, on the evidence submitted, to hold the scales of justice evenly as between employer and employee.

There will be few, however, who will not agree that the Commonwealth Arbitration Court is an expensive and cumbersome instrument, and that disputes as to wages and conditions could be better settled by a simpler form of judicial procedure, such as, for instance, the State Wages Boards.

* * * *

The existing award which is about to be varied is as follows:—(Weekly wages are given.)

Pickers, male and female, 72/-; over 15 and under 18, 63/-; under 15 years, 45/-.

Packing and forwarding employees, 72/-; males under 18 years, 63/-; females, 15 years and over, 54/-; females, under 15 years, 45/-

Sweat lumpers, dippermen, barrowmen, etc., 78/-.

Females cutting or pitting stone fruit, 54/-, over 15 years; under 15 years, 45/-.

Expert pruners, 81/-.

Other employees, pruning, pullers-out or tiers-up, etc., 72/-.

Permanent horse drivers, 69/-.

There are eight public holidays specified, and sundry conditions are necessary on the part of employers in addition. Boards of reference are in existence at Renmark (S.A.), Mildura, Goulburn Valley (Vic.) and in other sections.

The Difference Between Profit and Loss Lies in Clean Orchards

A New Era in Orchard Sprays

GUMLYPTA ORCHARD SPRAY

The combined insecticide and fumigant that can be used on your trees at any time of the year, and costing less than 3d. per gallon for effective strength.
Destroys Woolly and all Aphis, Red Spider and all Scale Insects, White Louse, White and Pink Wax.
We recommend 1 part Gumlypta to forty parts water for general purposes.
GUMLYPTA ORCHARD SPRAY is Eucalyptus Oil and other insect destroying oils scientifically blended with Carbon Bi-sulphide, etc., so as to mix with water at any strength.
Prevent Fungus growth and Leaf Curl, etc.
Thousands of gallons sold throughout Yanco, Gosford, Wyong, Orange, Richmond (N.S.W.), Mildura, Castlemaine (Vic.), Stanthorpe, Mapleton (Q.), and the Huon (Tasmania).

PRICES:—7/9 per gallon in 4 gallon tins, 8/6 in 1 gallon tins, F.O.B. Sydney

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LONDON FRUITARIAN RESTAURANT.

An Attractive Enterprise.

A Fruitarian Restaurant was opened in Fleet Street, London, early this year as the result of several requests made by Messrs. W. and A. Isaacs, Ltd., of New Broad Street, E.C., states the Fruit, Flower, and Vegetable Trades' Journal.

Fruits, nuts and confectionery are so arranged that customers will have their appetites roused immediately on entering the premises.

A fresh-fruit luncheon will cost from 1s. 3d. to 1s. 6d., and there are plenty of drinks, including tea and coffee, ginger ale, lemonade, quinine tonic water, lemon squash, limejuice, ginger, wine, peppermint liqueur, etc. An "orangeade" fountain is coming from America.

The opening ceremony was carried out by Dr. Josiah Oldfield in the presence of a distinguished gathering.

Dr. Oldfield, in declaring the restaurant open, said that the fruitarianism was the diet of choice of the cultured future. Flesh-eating was the diet of necessity of the barbarian past.

Land that was suitable for fruit-culture would produce from twice to twenty-six times as much food per acre when cultivated under fruit as when used for the production of beef.

The labour required would be from 3 to 50 times as much when men were growing salads and fruits and nuts as when they were herding cattle.

The following were some of Dr. Oldfield's points:—

Apples prevent kidney trouble. Oranges and Lemons prevent influenza and cure fevers. Grapes and Raisins postpone senile changes and perpetuate youth. Nuts and oils prevent chills and provide body heat, physical endurance and stamina. Salads and vegetables supply potassium salts and vitamines and ward off scurvies and anæmias.

To-day America was spending £16,000,000 per annum on cosmetics and face powders; if she spent it instead upon the foods which produce a velvet skin, lustrous hair, limpid eyes and the fragrance of health, what an increase of happiness there would be in the world!

When a man then married a girl who was the pride of his eye he would find that he had got a real peach, and not merely a mouthful of powder. (Laughter).

'Phone, Central 8479

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Fruit Importer and Exporter

COMMISSION AGENT

49 WILLIAM STREET, MELBOURNE, VIC.

Solicits consignments of APPLES, ORANGES, BANANAS, PINES and all other fruits.

Account sales with cheque daily.

EARLY FRUIT CONVENTIONS.

Reminiscences of Mr. James Lang, Senr. (Harcourt, V.).

Mr. James Lang, Senr., one of the pioneer fruitgrowers of Australia, advises that the first convention of the fruitgrowers of Victoria was held on September 19th, 20th and 21st, 1889. The Hon. J. L. Dow (Minister of Agriculture) was in the chair. Delegates were present as follows:—

From Royal Horticultural Society—Messrs. Wm. Anderson, M.P., J. C. Cole, C. Draper, James Lang, Geo. Neilson.

From other Horticultural Societies, as follows:—Chas. Allan (Brighton), Wm. Bray (Tatura), H. Coghlan (Sth. Suburban), B. Cochrane (Linton), A. Curtis (Benalla), T. P. Errey (Hampton and Heytesbury), E. F. Hughes (Casterton), —. Hunter (Wandin), G. Johnson (Collingwood), H. King (Geelong), N. B. McKay (Mildura), E. T. Peers (Diamond Creek), A. F. Spawn (Richmond), A. Stuart (Victorian).

From Fruitgrowers' Associations—Chas. Craike (Geelong), Thos. Craike (Bendigo), H. B. Daly (Dunolly), Henry Parkinson (Castlemaine), W. S. Williams (Doncaster), and John West (Goulburn Valley Vine, Fruit, and Special Products' Association).

"The first interstate conference," continues Mr. Lang, "was held at Mildura in 1894, delegates being present from nearly all the Australian States."

Commonwealth Government Line of Steamers

FAST PASSENGER AND CARGO SERVICE TO LONDON

Via Adelaide, Fremantle, Colombo and Port Said, transhipping at Colombo for Calcutta, Rangoon, Madras and Bombay : : :

Vessels Sail from Port Melbourne as under:—

T.S.S. "MORETON BAY"	13,850 tons	J. Mason	11th July 1923
„ "JERVIS BAY"	13,850 „	W. R. Chaplin	8th August 1923
„ "LARGS BAY"	13,850 „	J. Beighton	29th August 1923
„ "HOBSONS BAY"	13,850 „	F. J. Ogilvie	19th Sept 1923

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Let a trial of

SULPHATE
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convince you that there is no cheaper nor better Nitrogenous Fertiliser on the Australian market

Write for Handbook, "Productive Fertilisers," to

The Australian Sulphate of Ammonia

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or for Prices and Quotations to any of the following:—

N.S.W. and Queensland: The Australian Gas-Light Co., Haymarket, Sydney; The Broken Hill Prop. Co. Ltd., 28 O'Connell Street, Sydney; The North Shore Gas Co. Ltd., 193 Alfred Street, North Sydney.

Victoria and Tasmania: The Metropolitan Gas Co., 196 Flinders Street, Melbourne; The Broken Hill Prop. Co. Ltd., 320 Collins Street, Melbourne.

South Australia and Western Australia: South Australian Gas Co., Waymouth Street, Adelaide.

Jam and Fruit Canning Trade.

Shareholders of Henry Jones Co-operative, Limited, South Yarra, at a meeting in June, sanctioned an addition for £750,000 to the present £750,000 capital of the company, by the creation of 750,000 shares at £1 each, carrying similar rights to the existing shares of the company, and authorised the directors to deal with the shares. At the meeting, at which more than 400,000 shares were represented by proxy, the acting chairman of directors (Mr. A. W. Palfreyman) stated that the proposed increase of capital was prompted by the fact that the number of unissued shares was so small that it was not possible to deal with the future expansion and development of shareholders' interests. The directors had no intention of issuing any of the new shares at present.

Since the inception of the company in 1909, with a capital of £500,000, there had been really only one authorisation of an increase in capital. That was an increase to £750,000, and there were only 17,244 shares unissued. Some shareholders had been under the impression that the company intended to make a considerable distribution of free shares. The question of shares or share distribution had not been discussed by the directors. It would be better to assume a continuity of the policy of the past. That would mean the issue of shares to the shareholders at parity.

At present there was so much interference by the Governments, and so much investment of Governmental capital in the States of Victoria, New South Wales and Queensland, that it was very unlikely and practically certain that no further capital of the company would be invested in what might be called the jam and canning departments of the business.

The directors had found that there was room for expansion in the other branches of the company. Just as the population of the State and the Commonwealth continued to grow, so the activities of the company were growing, and there was much room for expansion in other directions.

"TIRED OF MEDICINE."

A man walked into Dickson's Pharmacy at Geelong, and asked if A.M.S. really cured Indigestion. He had a weak stomach and a poor appetite and loss of sleep and despondency had made him desperate. "I've tried almost everything!" he said dispiritedly, "and I've lost faith in the wonderful cures I read about." It was explained to him that A.M.S. was simply the juices of certain herbs which helped the food to digest and toned up the stomach, and that his stomach was craving for these precise juices. He tried A.M.S., and it cured him. Why not try it yourself? All chemists 3/-, or by post 3/6 a bottle from T. A. Dickson, Chemist, Geelong.

For Sale

Superior Orchard property in Stanthorpe Granite Belt, 14 acres full bearing, principally apples, with pears, plums, peaches and quinces. 1½ acres one year old apple and plum trees. 1 acre one year grapes. 3 acres cultivation. Total area 56 acres.

Good house, implements, 3 horses, 3 cows, windmill, and elevated tank over permanent water, close to Station and School.

Apply, "Orchard" Box 628 G.P.O. BRISBANE, Q'LAND.

FRUIT TREES

All Leading Varieties

ALL STRONG, HARDY, AND WELL GROWN

APPLE and PLUM STOCKS

Write for particulars to

THOS. RUSSELL

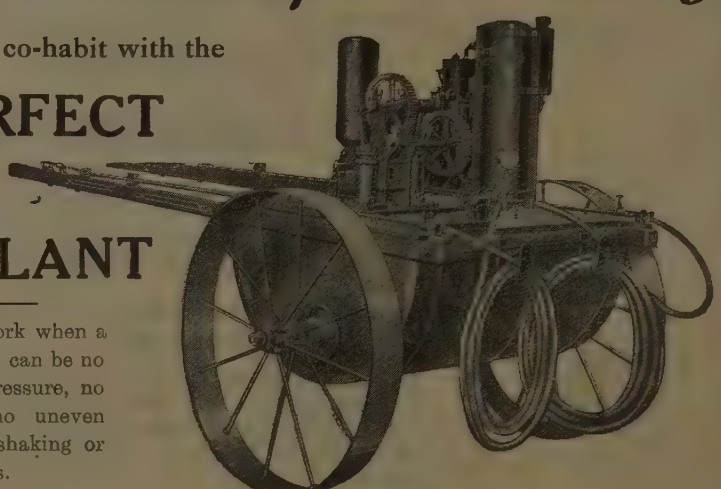
Alliance Nurseries

KINGLAKE - - - VIC.

Give your Trees a Cooper Cleansing

Orchard Pests don't co-habit with the

COOPER PERFECT BALANCE SPRAYING PLANT



Spraying ceases to be hard work when a Cooper Plant is used. There can be no bogged wheels, no lack of pressure, no excessive strain on horses, no uneven spray of mixture, no undue shaking or other common faults.

Spraying is Quick, Cheap and Effective when the Cooper Perfect Balance Plant is used.

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Seasonable Gardening Hints.

Plant Roses Now.

Rose planting time is with us again. There is a wonderful range of varieties offering to the enthusiast. Roses can be set as Standards, bush roses and dwarfs or climbers. The latter are particularly useful for gracing pergolas or for growing on fences, verandahs and the sides of houses.

Some of the newer climbers are of particular merit such as Miss Kitty Kinninmouth (exceptionally large flowers of bright carmine; Golden Vision (yellow), climbing Madame Edouard Herriot (copper shades), climbing Chateau de Clos Vougeot (scarlet), etc.

Seize this opportunity which comes but once a year for beautifying the homestead surroundings.

There are of course many other climbing plants available. Now is the time for planting the deciduous kinds, such as the Snail flower, Tecoma, Clematis, etc. Evergreen climbers may be secured in great variety, such as Jessamine, Lathyrus (everlasting pea) Kennedya, Ivy, ficus stipulata, dolichos, Tacsonia mollissima (banana passion fruit), etc.

Amongst the Vegetables.

In the Vegetable garden much useful work can be performed:—

Plant Broad-beans, Peas, Potatoes, Onions, Asparagus (roots) Rhubarb (roots) Radish, Turnip, Mustard and Cress; Seedlings of Cabbage, Lettuce, Silver Beet, Red Beet, Onions, etc.

The Guider Fruit Grader

The latest in Fruit-Grading Machines.
Now coming on the market.

OUTSTANDING FEATURES

Quick. Accurate. Durable. Cheap.
No Drop. No Bruising of Fruit.
Portable. Hand or Power.
Grades all kinds of Fruit any number of Grades.

Accommodation is provided for any number of Packers. Graded Fruit conveyed to Packers. No Handling.

Big Packers see this latest labor-saving device.

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This is THE ORCHARDIST'S CO.,

for insuring his buildings, fruit in store, Workers' Compensation, and other risks. An orchardist who becomes a shareholder and places his insurances with this Company participates in the profits which his own business creates. Thousands of farmers and orchardists are already shareholders. Write for particulars.

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Cleaned by our Special Machinery, and free from all weeds
SPECIAL QUOTATIONS for Cwt. or Ton Lots, on application

We have large stocks of the following in best re-cleaned Seed: **Broadleaf Dwarf Essex Rape, Grasses, Clovers,** and all varieties of **Green Fodder and Root Crop Seeds**

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Spraying Oils, Fungicides, Raffia

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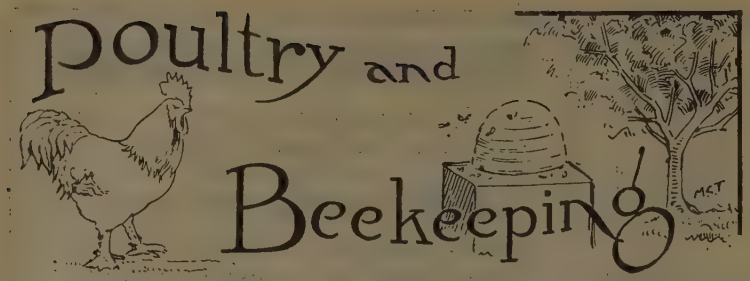


Poultry Notes.

THE HATCHING SEASON.

Conducted by Ian P. Hamilton.

* * *

The months of July, August and September are those in which hatching operations should be in full swing.

* * *

To get healthy chicks from fresh, fertile eggs three things are absolutely necessary—heat, air and moisture.

* * *

The difficulty of procuring broody hens at this season of the year often results in hatching being carried on well into the summer.

* * *

An incubator is the only sure way of getting out a good supply of early chicks.

* * *

Do not buy a bigger machine than you need to fill requirements.

* * *

Set the machine in a place free from draughts and away from any wall that has the sun shining on it.

* * *

Avoid vibration. An asphalt or cement floor is best, but do not have a damp earthen floor.

* * *

Always read and carefully follow the directions supplied with a machine.

* * *

It is not hard, as some people imagine, to run an incubator. Common sense is the chief requirement.

Avoid extremes of temperature. An incubator should always be kept in a place where the temperature remains as nearly even as possible.

* * *

An incubator in which the heat is evenly diffused should be run at 102 deg. This will increase to at least 103 deg. towards the end of the run, as a result of the increased heat coming from the eggs themselves.

* * *

Keep the incubator at an even temperature of 102 deg. for at least a day before inserting the eggs.

* * *

Insert only smooth-shelled and even-sized eggs, and see that they are fresh.

* * *

Unfailing regularity in trimming and filling the lamp is essential.

* * *

The supply of moisture necessary depends on the design of the incubator and upon the climatic conditions. A little during the last five days should be sufficient at this season of the year.

* * *

Eggs should be turned regularly—twice daily, except at the beginning and end of the hatch. At the beginning it is better to leave them undisturbed for twenty-four hours to heat up.

* * *

The eggs in the incubator trays should rest with the large end slightly higher than the other. This tends to prevent the chick's head being at the small end.

* * *

Do not turn the eggs during the last three days of incubation.

HATCHING DUCK EGGS.

Duck eggs require slightly different treatment.

* * *

The machine may be run at a lower temperature, but the difference will depend upon the machine.

* * *

One degree lower is usually sufficient.

* * *

Where free ventilation and free moisture are used, a little more moisture during the last few days is generally better for duck eggs.

* * *

More airing and cooling is also advisable, but take care to close the draws whilst the trays are out, in order that they may heat up again as quickly as possible.

* * *

Best results are obtained where the incubator is run in a room or cellar where a uniform temperature of about 65 deg. can be maintained.

* * *

After the machine has been slowly and thoroughly heated, and held steady at 100 deg. for twenty-four hours, the eggs should be inserted. Then turn on a litle more flame, and get the heat up to 102 deg., with the bulb of the thermometer level with the top of the eggs.

* * *

The first test should be made on the sixth day and the second on the sixteenth.

* * *

The regular turning of the eggs twice daily should begin after the first forty-eight hours.

* * *

During the third week the animal heat in the live eggs will cause the temperature to rise, and less flame will be required. Do not let the thermometer go below 103 deg., however.

* * *

The cooling, apart from that associated with the daily turning of the eggs, should be performed regularly during the third week. They should be cooled till the thermometer resting on the eggs in the draw stands as low as 90 deg.

* * *

Under no circumstances should cooling be done during the last week.

STONE FRUITS
CITRUS TREES
AND QUALITY ROSES

A GOOD START MEANS EVERYTHING

BEFORE PURCHASING send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

LASSCOCK'S NURSERIES Henley Beach Road, LOCKLEYS, SOUTH AUST.

Beekeeping Notes.

The Winter Season.

DURING THE WINTER months the colonies require little attention, the regular examination of roofs and entrances should suffice. Therefore, the time is opportune to make that which is needed in the way of appliances and hives for the coming season. Many progressive bee-keepers make these themselves and winter is the only time they have to spare. A general overhaul of hives and appliances is advisable. Those that are broken should be repaired, new ones bought or made, and those which are useless, thrown away or burnt. If this work is done annually, much money will be saved, and at the same time the whole of the apparatus will be kept in thoroughly good working condition.

Spare hives should be thoroughly scrubbed out, disinfected and painted, ready for the swarms of the coming season. Frames and sections should be fitted together, the foundation inserted, and the whole carefully stored away. Any spare comb there may be on hand should now be melted up, and preparations made for the future sale of supplies of honey and wax—an important matter that should be attended to well in advance. There is always a market for good honey, and at a good price. Therefore, suppliers should see that their products bring their proper value. Winter is the time for securing customers, as it is then that the bee-keeper has the leisure in which to give thought and attention to their requirements.

The Question of Markets.

In any effort to bring about an expansion of the bee-farming industry the matter of markets for the product is of vital importance.

It would obviously be of little value to produce an article of which we could not dispose, though bee-farming is by no means the only primary industry faced with the problem of finding bigger markets.

Finance, of course, is the great difficulty, but we cannot overlook the fact that *our national welfare and development are largly dependent upon the welfare and development of our primary industries, and the cost of their development would seem, therefore, to constitute a rational investment.*

What a great thing it would be if we could say to primary producers generally: There is an assured and profitable market for all that you can produce. It would inspire the producer to better methods generally. Poor market prospects often breed slackness and the train of troubles that inevitably follow slackness.

A glance at our position on the map shows that there is plenty of scope for the exploitation of markets for our produce. This matter of markets is not a problem for one man, nor a problem for one section, but one calling for the whole-hearted attention of all engaged in the primary industries.

The "Fruit World" Annual.—Considerable interest has been aroused by the announcement that the 1923-24 "Fruit World" Annual is now in course of preparation. The 1922 "Annual" was much appreciated, but the new edition will be an improvement.

The bookkeeping system will be found of great value to growers, as it provides an opportunity to make a record of the year's transactions for the financial period, July, 1923, to June, 1924. The system is simple, and is designed in accordance with the requirements of the Income Tax provisions.

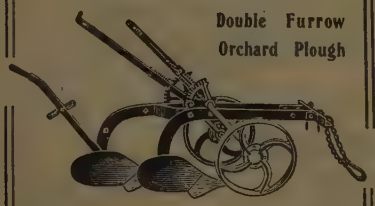
The spraying calendar is comprehensive and up-to-date.

Other articles deal with various phases of the industry in all the States and New Zealand, and full statistical information is given.

Copies are obtainable from "The Fruit World," 9 Queen Street, Melbourne; price, 3/- post free.

"NEWLIGHT"

Double Furrow Orchard Plough



Weighs only 2 cwt. Can be fitted with knife or circular coulters. Works right up to trees, both ways. Ample strength. The handiest orchard plough on the market.

Liberal extended terms if desired.

H. V. McKay, Pty. Ltd.
SUNSHINE
607 Collins Streets, West, Melbourne

FOR SALE Bave U Motor Spray Pump complete with Rods and Belting. Guaranteed order. Terms arranged. Particulars from
ESMOND RUSSELL,
60 Queen Street,
MELBOURNE

STRAWBERRY PLANTS.
Most Sorts, £1 per 1,000.
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Strong, from open beds.
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D. J. Latham
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MELBOURNE
AUSTRALIA

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Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.
Wade, Noel, V., Royal Exchange (representing the North of England Fruit Brokers Ltd., Manchester, Eng.).
Wade, Capt. W. J., M.B.E., 8 Bridge St. (representing Port of Manchester).

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Mumford, J. G., 449 Flinders Lane.
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Silbert, Sharp & Davies, Western Markets.
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Manchester.
North of England Fruit Brokers Ltd., Port of Manchester (representative Capt. W. J. Wade, M.B.E., 8 Bridge St., Sydney, N.S.W.

British and Australasian Market Reports

AUSTRALIAN APPLES AND PEARS IN GREAT BRITAIN.

London, (6/6/23)

The Western Australian Apples per the s.s. "Larg's Bay" realised 15/- to 16/- per case; Victorian, 13/- to 14/-. The experimental shipment of Queensland Pines, arrived in fair condition, but were of poor color. The best realised 1/3 to 1/7 each, others 6d. to 10d.; Best Azores Pines were 1/6 to 2/-.

Liverpool (6/6/23)

Tasmanian Apples ex the "Somerset" and "Zealandic" realised 13/9 to 16/- per case, for Cleo's, Jon. 14/- to 15/6; Sturmers, 12/9 to 15/-; others 11/- to 14/6.

London (11/6/23)

Western Australian Apples per the s.s. "Port Campbell" fetched 15/ to 16/-; Tasmanian Sturmers 14/- to 15/6; New York Pippins, 15/- to 16/-. Pears from Western Australia realised 15/- to 16/- per case for Vicars and 8/- to 8/5 per half case for Winter Nelis. Tasmanian Josephine fetched 8/- to 9/- per tray; Glou Morceau, 6/- to 7/-; Winter Nelis, 9/-; Vicars, 5/9 to 6/6. Many cases of Apples forwarded by s.s. "Large Bay were wet and stained. Importers are claiming damages from the Shipowners.

London (18/6/23)

Tasmanian Pears ex the s.s. "Port Campbell" realised 12/- per half cases; Josephines Vicars, 6/- to 8/6. The damaged Apples by the s.s. "Port Campbell" has checked the trade, making buyers cautious.

London (20/6/23)

Tasmanian Apples ex the s.s. "Moldavia" are selling mostly at 13/- to 14/- per case; New Yorks realising 13/6 to 14/6.

Liverpool (21/6/23)

Cleo's ex the s.s. "Medic" brought 14/6 to 17/6 per case; Sturmers, 13/- to 15/6; others 11/6 to 14/-;Tasmanian Pears, Easters, 8/- to 10/6 per tray; Winter Nelis, 10/- to 10/6; Glou Morceau, 7/- to 9/6.

London (23/6/23)

Tasmanian Apples per the s.s. "Moldavia" realised; Sturmers, 11/6 to 15/- per case; Cleo's, 13/6 to 16/-; Jon. 13/- to 14/-; others, 11/- to 13/- while some wasty lots were sold at 10/6 to 11/6; Victorian Apples ex the s.s. "Baradine" fetched 14/- to 15/- per case for Sturmers and 13/- to 14/- for Munro's.

NEW SOUTH WALES.

Sydney (26/6/23).

Mr. F. Chilton, City Fruit Markets reports under date 26/6/23.

Queensland Fruits.—Pines, Smooths, 6/- to 9/- per case; Tomatoes, 8/- to 14/- per half case. New South Wales Fruits.—Bananas, (Tweed R.) 14/- to 23/- per case; Oranges, 4/- to 7/6 per bushel case; Navel Oranges, 8/- to 11/-; Mandarins, 7/- to 12/-; Lemons, 5/- to 9/-; Apples, Granny Smith, 8/- to 12/-; Passions, 6/- to 13/- per half case, Victorian Fruits.—Pears, B.B. 10/- to 12/- per bushel case; Howells, 10/- to 13/-; Packham, 10/- to 14/-; Tasmanian Fruits.—Apples, Crofton, 6/- to 10/- per bushel case; S.P.M. 4/- to 8/-; S.T.P. 4/- to 6/-; F.C. 6/- to 8/-; Jonathan 6/- to 8/-; Dem. (Tasma) 8/- to 12/-; Pears.—Winter Cole, 5/- to 7/- per half case; Winter Nelis, 5/- to 7/-; Napoleon, 4/- to 6/- per bushel case.

Ample supplies of Apples are arriving from Tasmania, the quality of the bulk being medium to inferior, with much soft and bruised fruit in evidence. Queensland Pines are well supplied.

VICTORIA

On the Melbourne Markets, cold stored Apples are coming forward regularly, and realising fair prices.

Citrus fruits are forwarded in good supply and every agent holds ample stocks which are being cleared at prices ranging from 12/- to 13/- for good quality Navels. In some cases 15/- has been paid.

Bananas are arriving in fair quantities. The supply of Pineapples is lighter. Earlier consignments were sent too green and Pines went black in the centre with the result that the public demand has fallen off.

Melbourne (29/6/23)

The following are the Prices ruling at the Western Market:—Apples, Choice eating, 8/6 to 9/6; good eating, 6/6 to 7/6; good to choice cooking, 3/6 to 6/6. Bananas—Queensland, 20/- to 28/- double. Lemons—Victorian, 8/- to 10/- Mandarins—N.S.W., 11/- to 14/-; Oranges—N.S.W., 7/- to 9/-; Navels, 8/- to 12/-; Passion Fruit—Victorian, 14/- to 25/-; Pineapples—Queens, 9/- to 12/- double.

MARKETING CITRUS FRUITS.

The Victorian Central Citrus Association is asking District Secretaries to advise what quantities of Oranges members will have available for shipment to New Zealand on consignment by the s.s. "Moeraki" leaving Melbourne on July 12th. This fruit is to be consigned to the South Island Fruit Brokers 'Association. After the first shipment the V.C.C.A. intends to conduct the trade on an f.o.b. basis.

Preference for Agent.—District Secretaries are asked to issue an intimation that growers who have a preference for one of the authorised agents over the other can stencil the particular agents brand on the case so that the V.C.C.A. Market Representative can carry out the growers desire.

Making up "The Simper" Case.—The V.C.C.A. Secretary states that it is important to note that in making up these cases the ends of the cleats should be kept flush. If they are allowed to project even an eigth of an inch, the internal capacity of the case will be materially reduced.

Melbourne Market Position.—Up to the present the two appointed agents of the V.C.C.A. have been found equal to dealing efficiently with all the fruit coming forward. Growers are to be complimented, states Mr. B. S. B. Cook, Secretary of the V.C.C.A., on the way in which they are carrying out instructions.

SOUTH AUSTRALIA.

Adelaide (28/6/23)

Apples, eating, 10/- to 14/- per case Queensland Bananas, 30/-; Lemons, 6/- to 7/-; Oranges, 7/- to 8/-; Mandarins, 14/- to 16/-; Navel, 12/- to 14/-; Passion Fruit, 34/-; Pines, 14/- to 15/-; Nuts, Almonds, 10d. per lb.; Brazil Nuts, 13/- per doz. lb. Cocoanuts, 5/- per doz.

WESTERN AUSTRALIA.

Perth (23/6/23)

Apples, Yates, Prime, 9/- to 11/6 per bushel case; others, to 5/-; Doherty to 7/9; Cleo's to 6/3; others to 4/-; Dunn's best, 5/- to 6/-; others to 4/-; Romes to 6/-; Jon. to 6/3; Granny Smiths to 9/3; Pears, Flats L' Inconnue to 4/-; Vicars to 3/9; Navels, dumps special, 11/- to 13/3; medium, 6/- to 8/-; others to 5/6; Flats best, 6/- to 8/3; others to 4/6; Mandarins, best, to 11/3; others to 15/-; Lemons, best, to 9/-; others to 5/-; Quinces, Flats to 4/6.

QUEENSLAND.

Brisbane (26/6/23)

Apples, Jon., 10/- to 11/- a bushel case; special, to 12/-; scarlet, 9/6 to 10/6; N.Y.P., 9/6 to 10/6; F.C., 8/- to 9/-; inferior and yellow, 6/- to 7/-; Aromatic, 9/- to 10/-; special, to 11/-; S.T.P., 8/- to 9/-; special, to 10/-; Pears, Kieffers. prime, 8/- to 9/6; others, 6/- to 7/-; Josephines, W.C., and W.N., 13/- to 15/-; Dur., 11/- to 13/-; Oranges, common, prime, 9/- to 10/-; others, 7/6 to 8/6; Navel, prime, 14/- to 15/-; others, 12/- to 13/-; Mandarins, specials, prime, 15/- to 16/-; others, 10/- to 14/-; Lemons, S.A., 20/-; local, 4/- to 6/- a half bushel case; Passion Fruit, 6/- to 7/6; others, 3/- to 5/-

NEW ZEALAND.

Auckland 19/6/23).

Messrs. Turners and Growers Ltd., report under date 19/6/23.

The New Zealand Market for Citrus Fruits is good, although of course only small quantities of Australian fruit have been arriving to date. The lines have included Mandarins, Navel Oranges, Passions, Ohanez Grapes and Queensland Pines. Growers of these lines can safely consign to New Zealand, more especially to Wellington and Auckland, but it is inadvisable to ship if the fruit is not of real prime quality.

Dunedin.

Messrs. Central Produce Mart Ltd., report under date 18/6/23, as follows:—

The "Moeraki" just to hand and the "Waikouaiti" carried fairly heavy consignments of fruit and onions to this market. Our shipment of Navel Oranges arrived. They were rather large and hardly ready, but we secured 26/- to 28/-. A parcel of 200 half-gins of Grapes came forward. They were magnificent quality, opening in beautiful order, and realised 28/- to 30/- per case. A small lot of Lemons came forward from Adelaide, and were eagerly taken up at 25/6 per bushel case. Mandarins 20/- to 22/-, Passions, first-class, 24/6, seconds 15/-

We had one parcel of 35 cases of Pines; these arrived in nice order, they were Queens and were eagerly purchased at 23/6 to 27/- per case. Another consignment of 30 cases unfortunately arrived very green, and the best price obtainable for these was 15/-. A small parcel of Poormans came to hand and these realised 15/6, and a few Sevilles brought 17/-; but these prices will not hold if large consignments come to hand.

Ship Your Oranges, Lemons, Grapes to New Zealand

All consignments for this market will have careful attention and realize highest prices if sent to

The Co-Operative Fruitgrowers of Otago Limited, Dunedin

Personal supervision of every consignment.

Cheques posted promptly.

Drop us a Line or Cable "Peachbloom," Dunedin.

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Will find it to their advantage to ship their fruits direct to

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We have consistently fought to help the Australian Shippers, and the REDUCTION OF DUTY and BETTER SHIPPING FACILITIES is the result of our efforts.

We have the Most Central and Largest Saleroom in the South Island
A Staff who have a personal interest in each consignment
OUR ADVICE IS AT YOUR SERVICE

Write or Cable - - "REILLY DUNEDIN" - - Satisfaction is assured

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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

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Editorial

MARKETING FRESH FRUITS.

What is Co-operation?

AT A RECENT Australian Conference of Fruitgrowers, Mr. Geo. Quinn, the noted Horticultural Instructor to the South Australian Government, remarked that whereas once the principal questions asked by growers related to details of production, now the questions dealt mainly with marketing.

That position is true regarding the fruit industry in all its branches in every State of Australia and in New Zealand.

The times call for sane, level-headed action, and for cool leadership by the men with the best brains in the industry.

Panic legislation and hasty action will only make confusion more confounded.

Growers of jam and canning fruit are asking for another pool financed by the Federal Government. In his budget speech, the Treasurer (Dr. Earle Page) states the Government wants to wind up the pools as soon as possible.

But seeing that Government action is largely responsible for the present difficult position, it surely is the duty of the Government to give such assistance as will tide the industry over the crisis. We must get back to normal sooner or later, but if a pool is refused this coming season, and the canneries do not fully operate, there will be a disastrous time ahead for the settlers on Government areas, returned soldier orchardists, and growers generally.

Queensland has plumped for unified control in a "Committee of Direction" with statutory powers.

On the face of it this appears to possess the elements of Socialism and bureaucratic control, so dear to the hearts of the Labor Party.

New Zealand is considering proposals for a "Control Board," composed of capable men, apart from the directors of the Fruitgrowers' Federation.

Citrus growers in South Australia, Victoria, New South Wales, and Western Australia are organising to protect and develop the citrus industry.

A big responsibility rests on the leaders of these movements.

Unskilful action in business will result in disaster and loss, just as surely as an unskilful cut of the surgeon's knife will result in harm and even death of the patient.

Business negotiations are often as delicate, and need as much knowledge in their particular spheres, as the physician or surgeon dealing with a patient or the captain on a ship in a storm in dangerous waters.

It is not the "enthusiasm" nor the "new ideas" which count in the emergency: it is the certain knowledge of trained minds.

Californian fruitgrowers learned some bitter lessons before they put their industry on a payable basis. Australian growers could well afford to study the methods of their cousins in U.S.A. Not that we should slavishly follow the experience in other countries, but we could well adapt the successful methods elsewhere to the conditions prevailing in this country.

Co-operation amongst fruitgrowers is not only desirable, but is necessary and vital.

At the same time it is unfortunately true that there are many loose ideas in this country as to the meaning of the word "co-operation," and the manner in which it is commercially applied in California and elsewhere.

Readers are referred to the comments in this issue by capable men who have recently returned from California. Mr. Sydney Stott, a successful Melbourne business man and fruitgrower, states, inter alia:—

> "Some people believe that co-operation means the elimination of commission merchants, but this is far from being the case. Once a year the co-operative growers of the North-West of America are the hosts of numerous representatives of the New York and London Commission Merchants at a public banquet and a round of entertainments. Some of the commission merchants do a huge business on behalf of the co-operators, and there is a very good understanding on both sides."

It needs to be remembered, too, that the Department of Agriculture in U.S.A. is wonderfully well organised, and specialists are readily available to study out the problems of production and pest control.

Whilst much good is being done by able and diligent scientists in the horticultural branches of our Australian and New Zealand Agricultural Departments, there is a vast field of research awaiting development, but the policies of the Governments have been all too frequently to starve scientific research branches, whilst money has flowed into Government trading concerns.

THE CITRUS INDUSTRY.

South African Organiser in Australia.

Government Control Deprecated.

Prof. E. O. Amundsen, formerly of the South African University, and organiser of the South African Citrus Exchange, is now in Australia. He is entering into negotiations with the Governments regarding his experience.

The Professor states that the organisation of the South African Citrus Exchange somewhat resembled that which the Queensland Government had recently adopted for the entire agricultural industry in that State. With this notable difference however—**the Exchange was not controlled in any way by the Government.** It stood or fell with the success or failure of the growers.